A Course of Lectures
ON
PAIN,
AND THE
THERAPEUTIC INFLUENCE OF MECHANICAL AND PHYSIOLOGICAL REST
IN
ACCIDENTS & SURGICAL DISEASES.

Delivered in the Theatre of the Royal College of Surgeons,

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LECTURE V.—PART II.

Now let us see whether the subject of "mechanical and physiological rest" can be made therapeutically available in reference to the treatment of acute pericarditis. The physician cannot fail to admit that, whilst treating pericarditis, he has to deal with a membrane investing and surrounding an organ with whose functions complete rest is incompatible, since the rhythmical movements of the heart is necessary to the persistence of life; and yet he must allow that it is only through the medium of lessened action and diminished distension of this organ, with a concurrent lax condition of the diaphragm and pericardium, that he can expect to obtain any relief from friction to the serous membrane itself. Allow me, then, to put before you this suggestive question: whether, in a case of acute pericarditis, it would be possible to over-estimate the value of local rest as a therapeutic agent? We, as surgeons, see the ill effects of friction upon inflamed parts—as in cases of inflamed joints, of inflamed ulcers, inflamed conjunctivæ, inflamed skin, &c. So we may fairly assume that friction upon the two free and inflamed surfaces, as in early pericarditis, must add materially to the local mischief, and tend to keep up the inflammatory condition.

I assume—for it is not from direct clinical, responsible experience that I speak—that the physician's first anxiety is to quiet the action of the heart, to reduce the frequency of its pulsations, to diminish its muscular excitability, and thus to moderate the friction and its ill effect; and I may venture, in addition, hypothetically to imagine that he would desire even to stop the movements of the heart for a time, for the purpose of preventing friction, provided that arrest were compatible with life, or that he had the power to ensure the resumption of its activity. True it is that to man the control of the action of this important organ in this manner is not permitted. But although this direct influence is admittedly beyond the limits of human power, yet I think we discover that the treatment adopted in such cases is founded upon the principle of giving all possible rest to the heart. Venesection, antimony, opium, digitalis, are, I apprehend, resorted to for this purpose, or if not employed with this precise view, I conceive that their beneficial therapeutical influence is to be traced in part to their ensuring less frequent and less rough friction between the two surfaces of the pericardium, by diminishing both the distension of the heart and the rapidity of its action.

Let us say that the *origo mali* or the *vera causa* of the pericarditis, not traumatic, is, or may be, a morbid condition of the blood antecedent to the local inflammation; so that the local inflammation is to be considered only as a local manifestation of some general and diffused cause, in which the pericardium has unfortunately, in this instance, been selected; and we know that if the latent general cause, whatever it may be, be not successfully displaced by medicine or spontaneously exhausted, then the local inflammatory effusion of coagulable lymph becomes so accumulated round the oppressed heart that its rhythmical power is overwhelmed, and it ceases to act, thus closing the case with death.

With a view to the full and further appreciation of rest in idiopathic pericarditis, let us admit, for the sake of argumentative illustration, or of what I believe to be the right interpretation, that the effusion of lymph in this pericarditis results from the pathological element which was in the blood, and that the morbid condition of the blood has been exhausted by the inflammatory pericardial effusion, or that it has been eliminated by nature through some emunctory—kidney or some other organ—aided by medicine. May we not discover, I say, some good in the solid plastic effusion itself? I think we may—in the induced rest.

What is the mechanical influence of the effused lymph (which may or may not glue the two pericardial surfaces together) upon the serous surfaces, which are not only secreting but also absorbing surfaces? For it must be borne in mind, in anticipation of what I shall presently remark, that serous membranes are rapidly absorbing organs, very rapidly absorbing organs indeed. If the opportunity should be offered me, I hope to be able to adduce facts to show that the nervous depression which we term collapse, associated with laceration of the intestines, depends actually upon the absorption of some of the morbid fluid extravasated from the intestinal canal into the peritoneum. That absorption is one of the causes of collapse or nervous shock which is not usually considered in that light, but it has a very important bearing in practice; and I have no hesitation in saying, from both clinical observation and experiment, that these serous membranes are very rapidly absorbing organs. Observe this illustrative case of absorption by the peritoneum. Suppose a person has an injury to the abdomen, which causes an extravasation of a large quantity of blood into the peritoneum. This blood consists of a certain amount of serum and coagulable blood. Now, if the patient survive but a few hours, what do you find in the abdomen after death? No serum; every drop of it is gone. Gone where? All of it is absorbed. The clot of blood remains, but the fluid part of it has been taken up.

The result of the effusion of this inflammatory fluid is, that the serous surfaces become defended immediately from direct and intimate surface-friction; thus that possible source of irritation or local excitation is removed. Thenceforward this acquired rest, or freedom from direct friction, enables the serous membrane to recover itself by rest, and then to resume its not less important function of absorption. What I wish to convey, in a few words, is, that when effusion takes place upon the surface of the pericardium, that pericardium for a time is undoubtedly kept in a state of rest: it does not secrete any more fluid, and it recovers itself. This is precisely what happens in different parts of the body. For example, in the case of croup, when effusion of lymph takes place, the false membrane adheres for a time to the mucous membrane; the mucous membrane thus obtains a physiological rest, and the little glandular structures, imbedded in the submucous tissue, recover their strength through their physiological repose. They then renew their function of secretion, and pour out pus and mucus, and thus detach the false membrane. I think I might with reason compare (in relation to the subject of rest) the rapid effusion of lymph in pericarditis to the extreme callus formed by nature in cases of bad fractures. There is no doubt that the longer the inflammation of the pericardium continues the more unhealthy the membrane becomes, so that if inflammation of the pericardium becomes chronic or enduring, the pericardium acquires such an unhealthy condition that it will not perform its second function of absorption; and patients so affected are those who die with a large quantity of fluid in the interior of the pericardium, constituting dropsy of the pericardium. Thus if fluid be poured into a healthy pericardium, it is rapidly absorbed; if into a very unhealthy one, no absorption takes place: hence occur those dropsies that we so often see.

In pericarditis, with solid effusion, the original disturbing cause being removed (or having subsided by the general or constitutional treatment), we may affirm that the effused lymph has not only mitigated the local disturbance, but has been also the starting point of the local recovery, simply by preventing that irritation which otherwise occurs in the rubbing of the two inflamed surfaces upon each other, and by giving them absolute rest both mechanically and physiologically; so allowing the serous surfaces to resume their function of absorption, and to eat or drink up the temporary splint which had been poured out between them. For there is no doubt that solid effusion has been known to exist during life between the pericardial surfaces, recognised by certain diagnostic sounds which have subsequently ceased; and the patient dying some time afterwards, the post-mortem has proved that the whole of the lymph had disappeared, or had been absorbed.

We observe this same curative principle of acquired rest dis-

played in other parts of the body when suffering from inflammation, as will appear when I refer you again to the occurrence of solid effusion (callus) associated with the repair of some fractures of bones, and of the massive swellings which we see encumbering the exterior of inflamed joints, whether in cases of acute or of chronic destructive inflammation of the interior of a joint; the joint still, perhaps, going on to repair. When a cylindrical bone is fractured, what do you discover upon the exterior of the fracture, especially when the fractured pieces are not nicely adjusted, or are subjected to frequent local disturbance? We know that nature herself puts a splint upon the exterior of the bone, including the fracture, for the purpose of keeping the fractured ends of the bone in actual rest, and that in truth this external splint is developed in relation to the necessities of the individual case. In a badly adjusted fracture, which is unavoidably a good deal distorted, or one in which the fractured ends are movable upon each other, the callus or temporary splint is greatly augmented to meet the greater requirements in that instance for the insurance of mechanical rest; whilst in fractures not much disturbed and nicely adjusted, there is no external callus, only that internal soft callus which is interposed between the fractured ends of the bone.

I saw a most instructive case of this kind some years ago, which made a great impression upon my mind. On Sept. 3rd, 1845, Mary Ann L——, aged thirty, washerwoman and ironer, attended as an out-patient at Guy's Hospital. She had a hard swelling, as large as a moderate-sized orange, in the middle of the right clavicle, supposed to be exostosis or malignant disease of the bone. She told me that she thought she hurt it six weeks before, as she felt a sudden pain at the swollen part whilst trying to stop the falling of a chest of drawers. In a few days the part began to swell, and had continued to do so up to the time I saw her. A blister had been applied by her own surgeon ten days before, without any apparent advantage. Thinking it a case of disease or new growth in the bone, I ordered her to rub the compound iodine ointment freely into the tumour, and to take some ammonia and bark; and, having fixed her arm in a sling, I enjoined her not to use it or make exertion of any kind, for she always had pain in the swollen part of the collar-bone when she did so. I saw this woman again in three weeks, and the tumour was a little reduced; and I was congratulating myself with the idea that here was a case of malignant disease being cured by iodide of potassium. From that time I lost sight of her. Being anxious and determined to know the result, on the 24th of May, 1847, I went with Mr. Chabot to the houses of nearly all the washerwomen in Camberwell, and we at length discovered her. I examined the clavicle. There was a slight overlapping of the fractured ends of the bone, but the bone was consolidated. It was thus clear that she had had a broken clavicle, and what I had treated was the callus of a fracture. She told me that the swelling went away gradually after a few weeks, and she found she could resume her duties at the wash-tub and ironing-board without pain. Thus it appeared that by fixing the arm I had secured rest to the fractured bone, the necessity for that amount of callus which nature had supplied for the purpose of securing rest to the fracture was dispensed with, and then the callus disappeared under the influence of rest.

This natural process for the purpose of securing rest to a fracture is perfectly analogous in its effects to the effusion of solid lymph which occurs between two inflamed serous surfaces: the function of the external callus, associated with fracture, is only temporary, for as soon as the fractured ends become harmoniously and mutually consolidated it disappears. Its purpose is merely to maintain the fractured ends of the parent bone in a state of quietude and rest, so that nature may go on with her perfect work of exact repair without the fractured ends being moved upon each other, or in any way disturbed by surrounding external circumstances. I have seen this subject brought forward thus in a court of justice, in a case of doubtful fracture of a bone. The question has been asked of one surgeon by the counsel, "Would you say that the plaintiff has had a fracture, seeing that you find no callus?" And the answer was, "No, I should say there was no fracture, because there is no callus." Another surgeon is, perhaps, put in the witness-box, and he says, in answer to the same question, "I declare positively that the fact of there being no callus is to my mind the best evidence which could be adduced of the perfect treatment of the fracture by the surgeon." Now the fact of there being no callus is, no doubt, the highest encomium that can be passed upon the treatment of a fracture by the surgeon, who had adjusted and coapted the fractured ends so completely that there was no necessity for nature's splint to secure mechanical rest to the fracture; hence, the callus did not exist.

This same physiological point is also well displayed, in practice, in the occurrence of the thickening of soft structures external to inflamed or diseased joints. This thickening has the decided effect of giving mechanical rest to the interior of the joint, tending to steady it, to support it, to render it comparatively immovable, and to oppose disturbance by muscular contraction, showing the value which nature attaches to rest as a curative agent. How conspicuously striking is the changed configuration of the inflamed joint when the inflammatory condition has subsided, when the joint has recovered itself, or when the disease has resulted in membranous or bony union of the articular surfaces! Then it is that we may notice with admiring wonder the steady and sure removal by nature herself of the external adventitious matter as a something now unnecessary, and as being no longer required by the joint, either for its support or its security against movement; in fact, for its rest. As soon as the interior of the joint has recovered itself, or anchylosis has taken place, the benefit to be derived from the existence of the solid effusion ceases, and it disappears like the temporary callus of fracture, or like the effusions which take place after and surrounding local injury, or like the solid effusions which are intended to circumscribe the inflammatory abscess; for it is noticeable that as soon as such an abscess is opened the necessity for the deposit around it no longer exists, and it is absorbed. Thus, I think, we may see analogically the evidence of the beneficial influence of rest in the treatment of pericarditis; and we may discover some good to be derived from the inflammatory effusion by its giving rest to the pericardium for a time, and enabling it to resume its other function of absorption. By considering the subject of solid effusions associated with local inflammation in such a light, we recognise the folly of the surgeon attempting to get rid of the external callus of a fracture so long as the fractured bone is ununited; and, again, the folly of expecting to get rid of the surrounding swelling associated with chronic joint diseases before the joints themselves are repaired; in fact, it is impossible—it cannot be done.

But to revert to the subject of nerve-distribution. I might easily spread it out by showing the relation of another serous membrane—viz., the arachnoid membrane—to the fifth nerve (a nerve of sensation) and the facial or motor nerves of the face, and fix upon it some important points in practice; but time would not allow me to do justice to the illustrations, hence I must defer it to some other occasion.

Having examined this nerve-distribution associated with the joints and serous membranes, and pointed out some of its results as evidenced in the pathological symptoms induced by it in the diseases of those parts, I purpose now to consider briefly the same anatomical and functional arrangements as they are manifested in the mucous membranes and their directly-associated muscles. Let us look, for instance, at the conjunctiva, the orbicularis palpebrarum, and the skin covering the eyelid, in their due anatomical and physiological relations. These parts stand very much in the same relation to each other as the synovial membrane of a joint, the muscular apparatus moving that joint, and the skin over the insertions of the muscles. Thus we find that the facial nerve is one of the motor subdivisions of the great cranial compound nerve constituted by the large origin of the fifth nerve, as the sensitive root, and the third, fourth, fifth (motor portion), sixth, and seventh cranial nerves, which together form the motor roots of this cranial nerve; the whole of this nerve-association structurally resembling a common two-rooted spinal nerve. The sensitive root of the fifth nerve supplies the conjunctiva and skin with sensation, and the facial nerve supplies the orbicularis palpebrarum, the muscular apparatus, with motive power: these two nerves are most intimately associated both anatomically and physiologically; hence the constant and active sympathy between these parts. Now notice what happens when the eye is inflamed, or the light is too strong for the eye. The eyelids are immediately closed—the eye is placed in darkness, which is the eye's "rest." What a simple observation is this! how important in its relations, how widely applicable to general professional practice, is the law here exemplified and expressed! Here is an indication, a symptom, a typical expression on the part of nature which has been visible to mankind from one generation to another, and soliciting, as it were, apprehension; yet how little is it appreciated, how rarely made the guide to practice! Surely the neglect of such an indication is a great error, and requires correction. If the eye be inflamed (painful, irritable, red, congested, very sensitive) by exposure to a strong glaring light or to intense heat, immediately the eyelids are closed instinctively, thus adopting the principle of rest as a means to restoration. Tears are secreted, analogous to synovial secretions

in joint inflammations, to lubricate the conjunctival membrane, to interpose a layer of fluid between the globe and eyelids, to prevent direct friction of the two mucous surfaces, and possibly to foment the eye. If the eye be thus kept in temporary darkness, free from friction, and thus rested, it will return in a few hours to its normal state without any other aid. The restoration of the eye to its healthy state is complete; thus making manifest the great power which nature possesses of rectifying and controlling the morbid effects of inflamed structure or deranged function by rest.

It is certainly a curious, interesting, and most instructive fact, and well worthy of distinct notice here, that the portion of the body in which nature displays most conspicuously her immediate appreciation of the value of rest in relation to its restorative power is the organ of vision—the part of the human body, be it remarked, the most completely under the fullest observation of the surgeon, with the least amount of trouble to him, and where he may see most graphically expressed the evidence of the good to be derived from rest to the diseased or injured organ. The recuperative law of nature is in this instance unwittingly admitted, and its appreciation generally, if not universally, acted on in practice; for I suppose every living professional man of every grade, of every age, whether his intellectual acquirements be great or small, would advise the exclusion of light from an inflamed eye, which is in reality perfect rest to the organ, by removing its natural stimulus, and which in excess becomes a great source of excitation. This rest to the eye as a curative agent is instinctively adopted by nature, and it is also (as a matter of experience, if not the result of reason or reflection) constantly adopted by surgeons in their treatment of injuries or diseases of the eye. But I must add as a stigma and an opprobrium upon the mental perception of some of us, that although we recognise the law and the principle as applicable to the eye, we do not appear to see it so clearly, and certainly do not act upon it with the same fixed notions and the same precision, in its application to the other parts of the body when suffering from accident or disease. If the eye be inflamed, the first thing that happens is that the eye becomes placed in darkness in a dark chamber. Nature closes the shutters so as to exclude or intercept the rays of light, in order to give the eye rest, and for no other purpose; and all this is done automatically or instinctively. Well, if you admit darkness as necessary or important in the treatment of diseases of the eye, you will be compelled to admit as a principle the therapeutic value of rest in the treatment of diseases of the joints, and indeed in all inflamed parts. The other day I had this note from India from an old dresser of mine:—

"*Apropos* of your subject of rest: Do you remember in 1857 little J. G—— burning his face and eye with gunpowder? I got great credit for my skill in that case, and pocketed it; but the credit was really due to you in having instilled into my mind a deep-rooted idea of the importance of rest in surgical practice. J. G—— was letting off a squib; the powder did not ignite well, and he lowered his face close to it, and blew to kindle the flame, which he succeeded in doing, and in an instant the squib exploded, burning his face and eye. I saw him almost immediately, and found him in excruciating agony; the face darkened, skin ingrained with gunpowder, the conjunctiva of one eye black and looking puffy and half roasted. The cornea had a peculiar appearance: the outer lamina and conjunctiva over it had shrivelled, presenting an uneven, opaque surface (pretty much resembling the appearance of a cornea that has been after death so compressed as to have had its laminar structure irregularly displaced, and so become opaque), with a sooty dust ingrained and deeply pitted on its surface. The eye was washed with warm water, the lid then closed down, a drop of sweet oil having been first inserted under the lid, and a piece of plaster applied to keep the lid closed, but not to press upon the eye. The other eye was then also closed. Two days afterwards the inner canthus was washed with warm water, but the eye not opened. On the fifth day I opened the lid, and found the cornea bright and clear, and a new and healthy layer of epithelium covering the entire globe. Under the influence of rest, healthy nutrition had effected complete repair." This patient got quickly well.

Observe the effect of morbid action in another portion of the mucous membrane, in order to mark this same nerve-distribution. If you have an inflamed throat with inflamed tonsils, are you not constantly swallowing, in spite of yourself, and producing pain in the throat which you would be glad to avoid? What is it that incites this involuntary act of deglutition? It is an irritated or inflamed condition of the mucous membrane of the pharynx and palate which excites the associated muscular apparatus through the medium of the glosso-pharyngeal nerve and the pneumogastric nerves. You are constantly forcing and rubbing the inflamed tonsils, pharynx, and palate upon each other; and thus "swallowing" is excited frequently and painfully and against your will. This is exactly the same thing as irritation or inflammation of the synovial membrane producing contraction or spasm of the muscles moving the joint. This kind of case is best relieved by the local application of opium—by painting the throat with a solution of opium.

I saw not long ago, with Dr. Herbert Davies, of Finsbury-square, a gentleman who could scarcely swallow at all, for directly he put fluid into his throat it produced a violent and choking spasm. He was then nourished by nutritive enemata. I saw him endeavour to swallow fluid, but he nearly choked himself. I touched his throat with a camels'-hair brush, and a violent spasm was produced in the pharynx and larynx. Numerous and different gargles, weak and strong solutions of nitrate of silver, had been well employed, but without any advantage, and the patient was rapidly emaciating. I advised the use of a powerful anæsthetic to the irritable mucous membrane. I requested him to use a gargle containing prussic acid, and to swallow some of it. From the first time he adopted this plan of treatment he began to improve, and ultimately recovered. This application of prussic acid was adopted on physiological principles, merely for the purpose of reducing the sensibility and irritability of the mucous membrane, and of putting an arrest to the associated muscular spasmodic contraction. Subsequently this patient went to Hastings, and there the pharynx was painted with a solution of chloroform, upon the same principle of inducing physiological rest to the throat, and he got quite well.

Now take the larynx for illustration. Both the sensitive and motor nerves to the larynx are derived from the same pneumogastric trunk, and hence we note that any irritation or inflammation existing upon the mucous surface of the larynx or of the laryngeal surface of the epiglottis induces excited muscular action immediately on the part of the associated laryngeal muscles. This irritable state of the larynx is usually treated by the local application of nitrate of silver, in solution, or in the form of a very fine powder, which is blown into the larynx; and the relief is sometimes very complete and speedy, by the physiological rest which it gives to the mucous membrane. I apprehend that rest is accomplished by the nitrate of silver acting upon the mucus and albumen, forming a solid albuminate of silver, constituting an adherent temporary covering to the mucous membrane; thus giving it rest by defending it from the atmospheric air, and so destroying for a time that nervous irritability and muscular contraction which produce a sense of suffocation. So, after all, the engendering of physiological rest is the curative principle, based upon the fact that the same trunk nerve supplies both the mucous membrane and the muscular apparatus of the larynx.

With regard to the epiglottis itself, I would remind you that its anterior or glossal surface derives its nerves from the glosso-pharyngeal, by which it, as well as the posterior third of the tongue, is associated with the pharynx preparatory to deglutition. This principle of nerve-distribution obtains throughout the whole distribution of the pneumogastric nerve—viz., the same trunk of nerve supplies the mucous membrane and the associated muscular apparatus. So it is with respect to the intestinal canal: the mucous membrane and muscular walls are supplied by the same nerves, causing direct sympathy between them. I have no doubt in the world that the effect of most purgative medicines is to induce irritation and increased secretion from the mucous membrane, and increased muscular contraction in the walls of the intestines; and I must express my conviction that the frequently-repeated introduction of irritating medicines into the bowels is very likely to do a great deal of injury by exciting muscular contraction, and thence diminishing the calibre of the gut; and that subsequently a great length of time, with carefully-managed diet, is required to replace the intestines in a perfectly healthy condition. Purgative medicines are, to my mind, in this respect, very often injudiciously administered for a continuance.

DEATHS FROM INTOXICATION.—During the year 1862, coroners' inquests found 211 verdicts of deaths from excessive drinking, 145 men and 66 women thus ending their days. It is probable that these statistics afford a very inaccurate and inadequate account of the number of persons who really succumb to the influence of intoxicating agents. We fear that the cases that are submitted to the coroner's inquisition bear but a small proportion to the entire number of deaths that can be fairly attributed to the influence of alcohol.

ON

ASSIMILATION AND THE INFLUENCE OF ITS DEFECTS ON THE URINE.

Being the Gulstonian Lectures of 1862, *delivered at the Royal College of Physicians, London,*

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THE next alimentary principle that I have to speak of is fat—a material having a totally different destination to the principles belonging to the azotised group, of which I have hitherto been treating. It is true, fat must be looked upon as an article of nutrition, because it contributes to form the main portion of a tissue which enters largely into the constitution of our solid fabric, and seems to be required for the histological development of other textures; but the chief ultimate destination of the oleaginous principle in the animal system is towards the production of heat, by undergoing a slow process of combustion or oxydation in the animal system.

Fatty matters pass through the mouth and stomach without being digested, or rendered fit for absorption. According to Dr. Marcet's researches, however, neutral fats are acidified in the stomach, and placed in a state for being emulsified by the bile, the bile having no power to emulsify the neutral fats. When the fat of meat is consumed, the areolar tissue belonging to the adipose texture is dissolved, and the oily matter liberated, so that it may be afterwards prepared for absorption. Into the intestine a fluid is poured besides the bile—namely, the pancreatic juice, one special province of which is to emulsify or minutely divide the fat so that it may pass into the lacteals, and afterwards enter the circulatory system.

Dr. Bright arrived at the opinion, from pathological observation, that the pancreas was concerned in the digestion of fat. He noticed in cases of obstruction of the duct through malignant disease in the neighbourhood, that fat was allowed to pass and to appear in the alvine dejections. There are specimens of solid fatty matter preserved in the museum of Guy's Hospital that were obtained from cases of this description. Bernard, in the most conclusive manner, has since confirmed the opinion thus entertained by Dr. Bright and established upon physiological grounds the function of the pancreas connected with the digestion of fatty matter. Nothing can be more decided than the influence enjoyed by the pancreatic juice in emulsifying fatty matter the instant the two are brought in contact. By this emulsification the fat is reduced to an exceedingly minutely divided state, without any chemical change occurring. According to Bernard, however, when the emulsion, resulting from the admixture of pancreatic juice and oil, has been placed aside for some hours, it is found that the oil has undergone a chemical modification, and become converted into glycerine and fatty acid. But it would seem from the experiments of others, that this chemical decomposition does not ordinarily take place in the digestive canal, the fatty matter being only there emulsified, or finely divided, so that it may pass by absorption into the lacteals. With this specimen of pancreatic juice that I have before me it is easy to show the effect that is exercised by it during life. On agitating it in a test-tube with some olive oil, a milk-like liquid is immediately produced, which, be it observed, will retain its milk-like character on repose. No such effect is produced by saliva. The oil, by agitation, is reduced to small globules, and distributed through the liquid, but it will soon separate and rise to the surface on being placed aside to repose.

It is a well-known fact that after the ingestion of fatty matter by one of the mammalian animals the absorbents derived from the intestinal tract are filled with an opaque milky fluid; and hence their name—lacteals. Experiments were performed by Bernard to ascertain if the absorption of fat was alike in all the vertebrate classes. According to his results it is only amongst mammals that lacteals can be truly said to exist; for the introduction of fat dissolved in ether into the alimentary canal, which so rapidly gives rise to the presence of a milky fluid in the intestinal absorbents of the mammal, occasions no such occurrence amongst the other vertebrate animals. It is, following this physiologist, the portal system that forms the channel through which fat enters the system in the bird, reptile, and fish.

The examination of chyle has shown that the fatty matter which has been absorbed exists in a neutral state. It is simply in a condition of extremely minute division, and as such is poured by the thoracic duct into the circulatory system. Unless arriving in considerable quantity in the circulation, it is lost sight of, probably from undergoing saponification and solution, after mingling with the blood. If blood be withdrawn, however, a few hours after the copious ingestion of fat, the existence of this principle in a free state, or simply in a state of suspension, will become manifest by the formation of a white cream-like layer on the surface after the fluid has been allowed to repose. Examined microscopically, this cream-like layer is found to consist of exceedingly minute particles of fat, such as those which constitute the molecular base of chyle.

Having traced the entrance of fat into the circulation, I may now speak of its escape with the urine. It is exceedingly interesting to observe that this alimentary principle resembles albumen in passing off through the kidneys after a very copious ingestion. I quote from Dr. Bence Jones's work, "On Animal Chemistry in its Application to Stomach and Renal Diseases," that "Tiedemann and Gmelin fed a dog for four days on butter, and killed it three hours after the last meal. The urine was thick; and on being filtered, butter soluble in alcohol was left on the filter. They add: 'one of our pupils who likes fat has frequently found it in his urine.'"

But there is a peculiar morbid state of the system which is attended with the elimination of fatty matter in the urine after its ingestion in the ordinary way with the meals. This complaint—chylous urine—seems to depend upon a defective assimilative action. It is of but rare occurrence, particularly amongst the inhabitants of temperate climates. The urine contains fat in the form of an emulsion, which creates the milky or chylous appearance. But, strikingly enough, the unnatural state does not stop here; for other principles which ought to be retained pass off with the secretion from the kidneys. The urine undergoes spontaneous coagulation from the presence of fibrin. It also contains albumen. And, from a case to which I shall presently refer, it appears that sugar may also be present.

I will mention the particulars of a case which fell under the observation of, and has been recorded by, Dr. Prout. It exposes to us most clearly the state of the urine encountered in the disease. "The patient," he says, "was a married woman, about thirty years of age. The disease first made its appearance in 1817, and proceeded gradually. Her appetite was greater than natural, and she had other symptoms of diabetes; but her general health was very little affected, and almost the only inconvenience of which she complained was the difficulty of passing her water, owing to the coagula which formed in the bladder blocking up the urethra. On November, 1818," Dr. Prout continues, "I received three specimens of this woman's urine—namely, one voided in the morning, another a little after breakfast, and a third in the evening." To sum up the results derived from an examination of these specimens by Dr. Prout, it may be said that the first and second consisted of a solid jelly-like mass or coagulum, of a pale amber colour; red blood-corpuscles were present, and the serous fluid that exuded from the coagulum contained albumen. The third specimen, or that voided in the evening, after an early dinner taken about noon, to use Dr. Prout's own words, "was the most remarkable, and so closely resembled chyle in all respects that I am doubtful, if it had been brought to me as a specimen of that fluid, whether I should have discovered the imposition. It consisted of a solid coagulum, of a white colour, and assuming the shape of the vessel like blanc-mange. The fluid that exuded from the coagulum was white and opaque, like milk; and on being heated and permitted to stand at rest for some time, threw up a substance on its surface very like the cream of milk, and which, like cream, was found to contain a considerable proportion of a butyraceous or oily principle. It was not coagulable by heat, though it contained an abundance of albuminous matter."

It will have been observed, that of the three specimens of urine taken at different periods in this case, only one—namely, that of the evening—presented a truly chylous appearance. Such is what occurs in this affection. The urine during fasting, or for a certain time after food—that is, until a sufficient period has elapsed for digestion and absorption to have taken place, is free from fatty character. It is only after the entrance of fat into the system, as the result of its ingestion, that it makes its appearance in the urine. Hence, the morning urine, and that

passed shortly after breakfast, were of a pale amber colour; whilst that of the evening, the patient having dined in the middle of the day, was opaquely white, like milk.

Through the late Dr. Addison I was afforded an opportunity of examining one specimen of urine of this kind. It had formed a loose jelly-like coagulum, which floated in the fluid, but there was no milky or chylous appearance.

My colleague, Dr. Owen Rees, has supplied me with the following particulars belonging to three cases where he made an analytical examination of the urine:—

Specimen of milky urine, May, 1843.—No coagulum, remaining homogeneous like milk; specific gravity, 1021; fat taken up by ether; not saponified by caustic potash; fat only soluble with difficulty in alcohol.

Fatty or milky urine.—Fat extracted by ether; soluble with difficulty in alcohol; volatilized without decomposition; no saponification with liquor potassæ.

Urine passed by a lady from Bengal.—It was only passed in a chylous state occasionally. The urine was sent to Dr. Rees by Dr. Burrows. The latter suspected that sugar was present. The specific gravity of the specimen examined was 1023. It contained an abundant quantity of albumen. The oxide of copper was reduced by it, and this reaction was to be observed after the fat and albumen had been separated.

From the examination in the first two cases, the fat, in resisting saponification by potash, did not present its ordinary behaviour. The third case is interesting in establishing the presence of sugar. Dr. Prout says nothing about the passage of sugar either positively or negatively in this affection, although he speaks of some of the symptoms of diabetes accompanying the complaint. Sugar being added to the other morbid constituents—namely, fibrin, albumen, and fatty matters—we have in chylous urine an unnatural condition of the most mixed and extensive description. Now, it is an interesting fact that I have witnessed the passage of all these principles after the introduction of oil into the circulatory system.

In the experiments I have conducted, I have introduced oil into the portal, and likewise into the general venous systems. In one case, after the injection of six drachms of olive oil into one of the mesenteric veins of a good-sized dog, the urine in one hour and three-quarters' time was found to be strongly charged with sugar, but was without any other morbid character. There was no perceptible constitutional disturbance created, and on the following day the urine contained only just a trace of sugar. About a week afterwards, complete recovery having taken place, the animal's life was destroyed. The urine was natural, and all the organs were healthy. The bile was viscid, and threw down a considerable amount of deposit. Examined microscopically, it was found to contain many oil-globules in a free state, and oil-globules attached to little masses presenting a granular appearance. The liver cells also contained fat-globules, an unusual condition in the dog.

In another experiment, double the quantity (twelve drachms) of olive oil was injected into a branch of the portal system of a medium-sized dog. Serious disturbance was occasioned, and death resulted in four hours' time. Two hours after the injection there was no urine contained in the bladder, and after death only about half a drachm was to be procured. This, examined microscopically, was found to contain oil-globules and blood-corpuscles. (The precaution had been taken to introduce a catheter, *without being oiled*, into the bladder.) It gave a precipitate with heat and nitric acid, and therefore contained albumen. The kidneys were congested; the lungs œdematous. The liver displayed under the microscope a large number of fat-globules; the bile also contained a quantity of fat-globules.

Ten drachms of olive oil injected into the jugular vein of a large and strong dog was speedily followed by death. The breathing ceased before the action of the heart. Both sides of the heart and the vessels of the body contained dark fluid blood, which felt greasy, but showed no appearance of fat. The lungs did not collapse healthily, and gave a crepitating impression on being pinched.

Four drachms of olive oil injected into the jugular vein of a medium-sized dog produced death in about thirty-six hours. The urine that was voided by the animal about twenty minutes after the injection contained some various-sized fat-globules, and was slightly albuminous. The urine removed by a catheter (not oiled) three hours and a half after the injection was rather milky-looking, pretty albuminous, and to a slight extent charged with sugar. Examined microscopically, blood-corpuscles, small granular particles (fatty?), and a large number of single prisms and prisms in brushes and double brushes, were seen. The urine, eighteen hours after the injection, contained albumen, blood-corpuscles, *casts of uriniferous tubules*, and the same crystalline deposit that had been before met with. The urine twenty-five hours after presented the same characters as the last, but on some of the casts of the tubules epithelial particles and nuclei were seen. At the post-mortem examination of the animal, dark-coloured blood of a loose gelatinous character oozed out from the divided vessels; the lungs were highly œdematous; bronchial tubes filled with a frothy serous fluid; no hepatization or breaking down of lung-tissue in any part discoverable; the kidneys presented a natural appearance to the naked eye.

The introduction of oil directly into the circulatory system is thus attended with the most serious consequences, and the state of the urine it occasions is of interest on account of the same chemical principles having been observed in it as have been noticed in chylous urine.

There yet remains another group of alimentary principles for me to speak of—the saccharine group. This, contributing towards the production of animal heat, has the same destination as the oleaginous; but, there being a sufficient amount of oxygen in the compounds belonging to it to form water with the hydrogen they contain, their combustion, taking weight for weight, will be necessarily attended with the evolution of a less amount of heat.

The sugars and starch form the chief principles belonging to the saccharine group. The sugars require no digestion or special preparation for absorption. Both cane and grape sugar being exceedingly soluble and diffusible will pass with facility through the limiting membrane of the alimentary tract into the circulatory system. To what extent, or whether to any extent, cane sugar is converted into grape sugar before absorption, I am not aware has been shown; but some experiments of Bernard upon horses prove that cane sugar—some, if not all—passes as such into the portal system. From a quarter to half an hour after the ingestion of sugar by horses, Bernard says, "sugar was found in the portal blood, even in the state of cane sugar, just as it had been taken, for all had not been changed into glucose or grape sugar."

Starch requires to undergo transformation to render it susceptible of entering the system. Starch, as such, it may be stated, is of no use to the animal being, because it cannot be absorbed and appropriated. It refuses to traverse animal membranes. Being easily transformed, however, by certain secretions produced by the digestive apparatus into a diffusible principle like sugar, it is placed in a position for being turned to avail in the processes of life. The human saliva enjoys the property of almost instantly converting starch into sugar; but, curiously to observe, this property is almost peculiar to the human subject. Although, however, the effect is so immediate as it is when acting upon a decoction of starch, yet it is not often that starch is ingested in so favourable a form for rapid metamorphosis; and its period of duration in the mouth is so transitory that it may be assumed, physiologically speaking, that there is not a digestive effect of any material consideration exerted upon starch in the mouth even amongst ourselves. The saliva, again, would lose whatever metamorphising influence it possessed, on the stomach being reached and the food mingling with its acid secretion; for the presence of an acid is unfavourable to the transformation of starch into sugar by saliva. Dr. Bence Jones has suggested that the acid itself of the stomach may exert an influence towards converting starch into sugar. And what I witnessed in an experiment of my own not very long ago, corroborates such a view. I had been keeping a rabbit for a few days solely on a diet of starch and cane sugar. This food was injected into the stomach through a tube passed down the œsophagus, so that it did not come in contact with the mouth. After death, grape sugar was found amongst the contents of the stomach, although none was contained in the food introduced. There is here, of course, no actual proof, because two materials, each susceptible of transformation into sugar by an acid, were employed; but starch is as readily thus transformed into glucose as cane sugar, and therefore may reasonably be taken as having constituted the source of certainly a part of the glucose encountered. Doubtless, however, it is the pancreatic secretion which, in the natural course of events, forms the chief agent intended for the digestion or transformation of starch. In the first place, the pancreatic juice, not only of the human species, but of animals in general, possesses, like human saliva, a highly transformative influence over starch; next, the conditions in the duodenum are all in the highest degree favourable for transformative action: the strong acidity of the gastric juice has been more or less neutralized by the alkalinity of the bile, the food is delayed in contact with the secretion during its gradual transit along the intestinal canal, and the

temperature is all the while maintained at an equable and elevated degree.

Sugar, whether ingested as such, or derived from the metamorphosis of starch in the alimentary tract, passes by osmosis into the circulatory system, and is carried to the liver. It requires no special manifestation of vitality to bring about the passage of sugar into the circulation, when present amongst the contents of the alimentary canal. Both cane and grape sugar enjoy in a high degree the property of diffusibility, and thus, in obedience to physical laws, will reach the circulation from the stomach and intestine. It would seem from the experiments of Prof. Bernard that this is the only manner in which sugar enters the system. On giving horses a solution of sugar to drink, and destroying life from a quarter to half an hour afterwards, he found sugar in the portal blood, but never, he tells us, did he discover the least trace of saccharine matter in the contents of the lacteals collected between the intestines and mesenteric glands. The absorbent system would thus appear to have the power, not only of picking up certain materials (oleo-albuminous) from amongst the intestinal contents, but also of refusing entrance to others, although existing in a soluble state. Now, admitting such to be the case—and I see no reason to doubt it—there is, I think, to be discovered in this arrangement a provision wisely harmonizing with circumstances connected with the subsequent disposal of sugar in the system. In anticipation of what I shall shortly have to speak of, I may mention that the information in our possession goes to show that sugar must be conveyed to the liver in order to be of service to the system as an alimentary material. The introduction of sugar into the general circulation is followed by its elimination from the body with the urine. If, then, absorption of sugar took place through the lacteals, as the chyle flows into the general venous system without traversing the liver, there is reason to conclude that such sugar would nearly, if not entirely, all simply pass through the system, and escape with the urine as a useless material.

ON A CASE OF CANCEROUS TUMOUR IN THE LOWER PART OF THE COLON.

WITH THE POST-MORTEM EXAMINATION.

BY CHARLES BELL, M.D., F.R.C.P.E., &c.

M——, aged fifty-five, a tall, powerful-looking man, of a naturally robust constitution, who was in the habit of undergoing great and often excessive muscular exertion, and even within a few weeks of his death walked occasionally five-and-twenty miles in a day, placed himself under my care in the month of March, 1863. He informed me that he had been recently suffering from obstinate constipation, to which he had been liable, with occasional attacks of tenesmus, for upwards of two years. Previous to that period his bowels had been perfectly regular for thirty years, seldom requiring medicine. The last attack of constipation yielded to enemata and repeated doses of the compound decoction of aloes and the infusion of senna, to which he had always had recourse on similar occasions. He looked ill, his countenance having a haggard expression, and his cheeks, in place of their natural rosy complexion, had patches of a purplish colour. His eyes were dull and heavy. He had become much thinner, and he said he had lost upwards of two stones in weight in the course of a few weeks. He had frequent nausea, which took away all inclination for food, and his tongue was coated with a thick, slimy, brown fur. He still felt as if his bowels were loaded, and he could not say that he had known for a length of time what it was to have a satisfactory evacuation of his bowels, as he always had the sensation as if something more were to come away; and his evacuations had the appearance of having passed through a narrow passage, which led him to fear that he had got stricture of the rectum. He had frequent irritation of the bladder, and a feeling of something always pressing on the fundus, and he could not stand for any length of time without having an aching pain in the perineum, which compelled him to sit down. I ordered him some small powders of calomel and James's powder, to be followed by rhubarb, potash, and aromatic powder, which acted freely on the bowels, bringing away a quantity of pale, feculent matter, and giving him more comfort than he had felt for a length of time. After this he went to visit some friends at a distance, in the hope that change would be useful to him; but unfortunately he was induced to over-exert himself, and became much exhausted, and was soon after affected with violent diarrhœa, his bowels being moved thirteen times in the course of the day. As soon as he was able to travel he returned home, more out of health than when he went away.

Having heard of his condition, I called on him on the 6th of May, when he complained much of his abdomen, which induced me to examine it carefully while he was in the recumbent position, when I discovered a tumour, nearly the size of a cricket-ball, about three inches below the umbilicus, and a little to the left of the mesial line. It was hard, and could readily be distinguished from the folds of the intestine by percussion, which required to be performed with great gentleness, from the extreme tenderness on pressure.

On the 8th, I requested my friend Dr. Wardell to see him, and he corroborated my opinion. It being questionable what was the nature of the tumour, there being a possibility that it might be a scybalous mass, we resolved to give him a large enema, with the view of removing it if it were merely a feculent accumulation. This prescription was carried into effect on the 9th, in presence of Dr. Wardell and Dr. Branson, who previously satisfied himself of the existence of the tumour. Nearly two quarts of thin gruel were thrown up the bowel, but it produced no diminution of the tumour, although it brought away a quantity of dissolved feculent matter, mixed with small scybalæ. When rather more than a quart was injected it gave him great pain, and he said he felt it passing where he thought the stricture was. The injecting was therefore stopped until the pain subsided, when a little more gruel was gently thrown up, but with the same effect as before.

On the 10th, the patient's father-in-law, who was a retired medical practitioner, came to see him, and being induced to believe, from his experience of his constitution, that there was feculent accumulation, he gave him a dose of castor oil, followed by a stimulating enema, but with no advantage, as violent pain in the abdomen and vomiting came on, with slight tympanitis; pulse 96.

11th.—The pain and tympanitis increased, and he ejected from the stomach a fluid like coffee-grounds; violent retching continued; pulse 96. A large blister was applied to the abdomen, and he had a draught containing four minims of the diluted hydrocyanic acid, and was put on calomel-and-opium, to be repeated every two hours; but the retching did not subside until after he had taken some ice. Mr. Solly saw him, and when I made my afternoon visit he surprised me by saying he proposed to operate on my patient. I most decidedly objected to his doing so, and pointed out to him that there was no proof of stricture in the bowels, and that the symptoms were nothing more than could be accounted for by the pressure of the tumour and the peritonitis. He persisted in the propriety of operating, and with the view of overruling my opinion and that of the patient's father-in-law, he sent for Dr. Wardell and Mr. Trustram, an old pupil of his own, and at the same time he sent to borrow an instrument, thus showing his determination of carrying his own opinion into effect. Dr. Wardell soon came, and, without having heard my opinion, strongly opposed the operation. Fortunately no instrument could be got, and my patient was saved from instrumental interference for a short time longer. The calomel-and-opium to be continued every four hours.

12th.—The inflammation subsiding, Mr. Trustram, who was unable to attend yesterday, saw him to-day, and he completely approved of the operation not having been performed. The calomel-and-opium to be given only every six hours.

13th.—The bowels were moved in the morning, and several scybalæ, one of which was of the size of a small egg, came away. He had less pain, and his countenance was less anxious, but there was considerable tympanitis; pulse 72.

15th.—Has been slowly improving since last report. Passed some more scybalous matter yesterday morning. Mr. Trustram visited him to-day in my absence, and introduced several bougies seven inches into the bowel; and when I saw him in the evening there was great increase of pain, fever, and tympanitis.

16th.—Much pain and tympanitis; pulse 84. Took a pill containing galbanum and the extract of jalap, which was followed by nausea and retching; he was therefore obliged to have recourse to the calomel-and-opium again, which relieved the sickness.

19th.—The pain has been diminishing since last report, and

he passed some more scybalous matter both yesterday and to-day, after having an enema.

21st.—Felt more comfortable and cheerful, although the tympanitis is very considerable.

22nd.—Had two doses of the compound decoction of aloes and infusion of senna, with two enemata, which were followed by great increase of tympanitis and uneasiness from the feeling of distension, for which he had a dose of musk, without relief; but he derived much comfort from friction of the abdomen with camphorated oil.

23rd.—The aloetic draught and the enema were repeated this morning, without effect in moving the bowels. As great distress was felt from the tympanitic distension, friction with the camphorated oil was repeated, and a bandage was put round the abdomen, which gave great comfort.

25th.—The aloetic draught and enema again repeated, which brought away some scybalæ yesterday morning. The tympanitis so much increased this morning that he could not bear the bandage. Took a pill containing two grains of calomel and four of aloes. He expressed a wish to have some curried mutton, which he ate with great relish; and he passed up a quantity of flatus from his stomach afterwards. Mr. Solly saw him in the evening, along with Mr. Trustram, without my knowledge, and, I was informed, passed several bougies up the rectum to the extent of seven inches.

26th.—There was little apparent change in the early part of the day, but towards evening he became exceedingly weak and restless; pulse 120. When the matter on the larger bougie which was passed up the bowel last night was examined by the microscope, it was found to contain cancer cells.

27th.—Passed a bad night. Dr. Robert Ferguson saw him in the afternoon, and fully corroborated the diagnosis which I had given, and recommended nothing but rest and nourishing diet, until there was some indication of returning tone to the system. With regard to the operation for artificial anus, he said it never was justifiable in this case, and that it never could become so during the patient's life.

29th.—Passed a good night after seeing Dr. Ferguson, and was much comforted by his visit. There has been little change in his symptoms except that the tympanitis has slightly diminished, and his bowels were moved yesterday morning by an enema. Mr. William Fergusson saw him this afternoon, along with Mr. Solly; and after carefully examining him, he agreed with the diagnosis I had given, and disapproved of the operation, stating it was not a case for it, because it was most probably a malignant growth pressing upon, and contracting the calibre of, some part of the bowel; in consequence of the very distended condition of the ileum, which rendered it liable to be injured; and from the risk that the patient would die during its performance. He remarked that there was a scybala in the rectum, and suggested the application of electricity, with the view of promoting the peristaltic motion of the bowels; and observed that afterwards it might be advisable to introduce a small elastic tube up the rectum, for the purpose of allowing the confined air to escape.

30th.—The bowels moved in the morning by an enema, and thin feculent matter and a scybala as large as a walnut came away. I was therefore surprised, on entering the patient's room, to find Mr. Trustram administering electricity to him. It seemed to have no other effect than to fatigue him, and his pulse was rapid and feeble. At four o'clock, four hours after the electricity had been applied, violent pain came on, but it was subdued by opiates; and he calmly died at eleven o'clock, being quite sensible to the last.

Autopsy, sixteen hours after death.—Present: Drs. Wardell, Branson, and Bell; and Messrs. Hicks and Trustram. (Mr. Trustram performed the operation.) Body not much emaciated. Abdomen very much distended, the skin looking tense and shining; percussion at all parts of its surface eliciting a clear tympanitic note. On opening the abdomen at the mesial line, confined air instantly escaped from the cavity of the peritoneum with a loud whistling sound. The incision being continued towards the pubis, from a pint to a quart of yellowish turbid serum poured out, and was followed by semi-fluid feculent matter, at once denoting that perforation of the bowel had at some part taken place. The stomach was flaccid and empty, and thrust high up beneath the diaphragmatic arch and the false ribs. The ileum was exceedingly distended with air, so much so as to present a semi-transparent appearance. At various parts of its course were patches of arborescent injections, evincing the turgid condition of the mesenteric vessels; and at some segments a pinkish inflammatory blush was observed. The descending colon was partially adherent to the abdominal parietes by organized bands of lymph, which from their degree of tenacity were not referable to the recent attack of peritonitis. The colon throughout its course was filled with air. Its muscular coat was not hypertrophied, nor its mucous coat atrophied. It contained some feculent matter of the consistence of thick gruel, but no scybalæ. At the descending portion, and a little above the sigmoid flexure, was the place of perforation, the hole being punched, round, and about the size of a pea. From it flowed a thin fecal fluid; and into the cavity of the peritoneum a considerable quantity of the same fluid had escaped. The sigmoid flexure, lying in situ, presented at its anterior aspect a thinned, shining, bag-like appearance; it was quite empty; and this pouch-formation which it had assumed coincided with the circumscribed spot at the left hypogastrium which was so tender and painful to the patient when the peritonitis commenced. On passing the hand downwards into the pelvic cavity, a large abnormal mass about the size of the fist was distinctly felt. The rectum, sigmoid flexure, and part of the descending colon being removed, it was evident that the upper part or third of the rectum and the opening into the sigmoid flexure were the seat of the morbid product, which was deposited in the annular form, infiltrated into the submucous areolar tissue, feeling hard and scirrhous when pressed upon by the finger at its peritoneal covering, and soft and pulpy when thus examined at the mucous membrane, manifesting the ordinary characteristic of cancer of the large bowel. The lower two-thirds of the rectum showed the muscular coat to be highly developed. The bowel at the diseased part was *not occluded*, feculent matter passing freely through it; but its calibre was encroached upon.

General Remarks.—It is not necessary to add much to the length of this truly interesting case by making many general remarks in regard to it, as the facts which have been related speak for themselves, and point out how important it is to make a correct diagnosis before rashly entering on the treatment of such cases. Had the operation been performed for artificial anus, which was proposed in ignorance of the history of the case, and harped upon with total disregard to the symptoms which were daily developing themselves, it would have been a source of never-ending regret; for even had it not proved fatal in its performance, which is most probable it would have done under the circumstances, it could not have prolonged life, which would have been rendered more miserable so long as it lasted. This opinion is fully borne out by the post-mortem examination, which not only proved the correctness of the diagnosis, but the utter hopelessness of all instrumental interference.

Tunbridge Wells, June, 1863.

REPORT OF

THREE CASES OF AMAUROSIS PRODUCED BY TOBACCO.

BY J. C. WORDSWORTH, ESQ., F.R.C.S.,

SURGEON TO THE ROYAL LONDON OPHTHALMIC HOSPITAL.

CASE 1.—W. A——, aged twenty-one, a clerk, residing at Liverpool, came to the Royal London Ophthalmic Hospital in 1861, on account of partial loss of sight in both eyes. He is a strong, healthy-looking, rather little man. Has always had excellent health, and never suffered from syphilis. His employment is principally in the open air, as he is engaged in clearing vessels at the Custom House, &c. For some years he has smoked, having gradually increased from two or three pipes per day, until he has reached the enormous amount of a pound to a pound and a half of strong tobacco in the week; and for some time has rarely been without his pipe half an hour in the day. For a long period his sight has gradually failed, till he can only see to read, for a short time, characters of one-third of an inch. Though he has had misgivings that his ailment proceeded from tobacco-smoking, he has continued the habit to the present time, and is now daily becoming more blind.

Both pupils are rather large, but the motions of the irides are active. By means of the ophthalmoscope, both optic nerves appear of brilliant white colour, their areas being enlarged, and their outlines irregularly defined.

CASE 2.—J. M——, aged thirty-six, a railway servant, came to the Ophthalmic Hospital, on account of dimness of sight in both eyes, about June, 1862. He is a tall, muscular, rather

pale man, and says he has always had good health. He is employed as a signal-man, and has been accustomed to beguile his time by smoking all day long. For an uncertain time he has noticed his sight to be gradually failing, and attributed the defect to the use of tobacco. He has still continued to smoke to the present time, and his sight has now become so imperfect that he is unable to attend to his business. He has never had venereal disease of any kind, nor has he used his eyes much for close vision.

The pupils are considerably dilated, and not much influenced by light. The fundus of each eye seems quite normal, with the exception of the optic discs, which appear too large, and irregularly circular, the tissue being quite of tendinous whiteness.

CASE 3.—G. A——, aged twenty-eight, a butcher, residing in Essex, applied at the Royal London Ophthalmic Hospital, March 25th, 1863, on account of failing sight in both eyes. He is a stout, strong, middle-sized man, having every appearance of health, and says that he has had excellent health all his life. He began to smoke about eight or nine years ago, moderately, but, gradually increasing, has now for some time been in the habit of smoking half an ounce of strong tobacco every day, apparently without any ill effect. About nine months since his sight began gradually to fail, and has continued to get worse to the present time. He has always been temperate as to the quantity of beer, &c., which he has taken, and has never drunk spirit habitually. He is a married man, and has three healthy children. Has never suffered from syphilis, nor has he used his eyes much at any trying occupation. With the exception of both pupils being rather large, and the motions of the irides sluggish, he has no external appearance of any ailment of the eyes. He can only see to read No. 18 test-type (canon) with his left eye, and with the right No. 16 (two-line great primer), word by word; and distant objects are equally indistinct.

The ophthalmoscope demonstrates an atrophic condition of both optic nerves, the inner (apparent) half of each, seen in the reversed image, being quite white and non-vascular; the outer part being redder, and more vascular than normal.

Within the last three years I have seen a considerable number of cases of amaurosis, apparently produced by the influence of tobacco. I admit (I need scarcely say) how difficult it is to reduce the etiology of this obscure affection to a demonstration. For, in the first place, amaurosis is attributed to a vast variety of causes, many of which are always more or less in operation; then, again, the disease is dependent on a similar variety of *pathological conditions;* and lastly, our knowledge of the physiology as well as of the pathology of the retina and brain is so limited that we can ill appreciate or define the influence of physiological agents on their structures and functions.

No one can doubt that tobacco possesses properties that are capable of producing great effects on the nervous system at large, nor that the habitual use of it has much influence, of an indirect nature, on the vital reactions. Our only wonder is that the almost universal employment of this powerful agent does not leave vestiges of its influence that are better known and recognised as signs of disease. This may be accounted for to some extent by the rapid cadaveric changes that occur in the nervous elements, thus obscuring or effacing diseased states before we have the opportunity of recognising them.

All the classic writers attribute its full share of causation to tobacco as a source of amaurosis; yet I have not met many that are willing, individually, to allow that they have traced its influence. But it has often happened that the causes of disease are long unrecognised by many, after as full a proof has been made of their reality as possible. For instance, it is recorded of one of the causes of iritis (that everyone now allows) that for many years it was not admitted by men of vast experience that any closer relation than that of coincidence existed between it and syphilis; yet so great has been the revulsion of opinion that some eminent men now seem to think it never occurs except in connexion with that contamination.

I have selected the cases above sketched to illustrate this subject, because they seem to be as free from the unavoidable fallacies that encircle this subject as possible. Many have come under my notice in which I could not find any other cause to account for the conditions; but few so typical of the atrophy of the optic nerve, or so advanced. It is obviously desirable to cite well-marked cases. Many of those observed gradually merged into less definite conditions, and were only corroborative, rather than conclusive. Again, many were so fettered with other complications that I consider them inapposite for my present purpose. All the cases that have come under my observation have (as might probably be expected) been in males. It will be noticed that only one pathological condition was seen in these three cases—namely, that of white atrophy of the optic nerves. I am not prepared to assert that tobacco produces blindness in this way only; but in all my cases I have recognised this condition in a great or small degree.

I may anticipate that I shall be asked, How can it be that of the hundreds of thousands of smokers, only so small a proportion are affected by amaurosis? I should reply, first, that few probably smoke to such excess the strongest tobacco; in the second place, we are not yet in a position to recognise the smaller degrees of tobacco-disease; and thirdly, as Dr. Mackenzie has aptly observed, only one of five hundred shall become amaurotic, in whom a stronger predisposition to the disease had existed.

Secondary syphilis affects the retina, and leads to amaurosis; but of the thousands affected how few become blind!

Then it has been suggested that I ought to show that amaurosis is most common where smoking is most general. To this I reply, it is impossible so to estimate and proportion the other recognised causes of amaurosis so as to enable us to compare them with the effects of tobacco, and thence deduce any relation. But so far as probability warrants, I think there may be some conclusion to this purpose deduced from the greater frequency of atrophy of the optic nerves in men than in women, (of which I suspect there is little doubt,) though the other causes of amaurosis are more likely to affect the latter—for instance, needlework, &c.

Dr. Mackenzie, in his great work on Ophthalmology, expresses his belief that tobacco is a *frequent* cause of amaurosis, and adds that "one of the best proofs of tobacco being a cause of amaurosis is in the great improvement in vision—sometimes complete restoration—which ensues on giving up the use of this poison," and cites a very striking case in illustration. With him I agree also in the conviction that tobacco is a common cause of the cases of partial loss of sight that are daily to be found at our hospitals.

Queen Anne-street, July, 1863.

A Mirror
OF THE PRACTICE OF
MEDICINE AND SURGERY
IN THE
HOSPITALS OF LONDON.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum, et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

GUY'S HOSPITAL.

ENLARGED MIDDLE LOBE OF PROSTATE, WITH DISEASE OF THE KIDNEYS; THE RIGHT URETER DILATED TO THE SIZE OF THE SMALL INTESTINE.

(Under the care of Mr. HILTON.)

THE three following cases are examples in which the prostate was more or less involved. In the third case an abscess occupied an hypertrophied prostate; whilst in the second case an abscess lay between the gland and the bowel, the bladder being enculated. In the case under Mr. Hilton's care the middle lobe was greatly hypertrophied, and projected into the bladder. This explains the consequent disease of the kidneys and enlargement of the ureters, especially the right, which had attained to the size of the small intestine.

The parts of the prostate chiefly affected by hypertrophy are ably described in Mr. Henry Thompson's work on the diseases of this gland. He found both lateral lobes and the median portion pretty equally enlarged in 74 out of 123 preparations which he examined; whilst in 19 others, although the gland generally was enlarged, the median part was enlarged to a greater proportion. The latter is therefore the less common, more interesting, and offers a greater obstruction to the flow of urine, the consequences of which are well shown in the following briefly narrated case:—

Thomas G——, aged sixty, was admitted on the 14th of March, 1863, into Luke ward, under Mr. Hilton, with urinary symptoms due to enlargement of the prostate. Soon after he sank into a typhoid state, as if the kidneys had become involved, and died on the 13th of April.

Autopsy, twenty hours after death.—The body was wasted. The ureters and pelves of kidneys were greatly dilated. On the right side the pelvis was as large as the kidney, and the ureter as capacious as the small intestine. When opened a milky fluid poured out, but the mucous membrane was not much altered in character. Both kidneys were wasted, and the section showed numerous white lines, as if an inflammatory product were thrown out in their tissue. Their capsules were firmly adherent to the tissues around, so that they could not be extracted with the organs themselves. They were also irregular on the surface, and the cortex was wasted. Bladder much hypertrophied; the muscular bands of great size and very prominent. The middle lobe of the prostate was enlarged to the size of a chesnut, and projected into the interior of the bladder.

ST. GEORGE'S HOSPITAL.

STRICTURE OF URETHRA; ABSCESS BEHIND PROSTATE; SACCULATED BLADDER.

(Under the care of Mr. PRESCOTT HEWETT.)

JAMES P——, aged fifty-six, admitted April 23rd, 1862, with the history of stricture of many years' standing. The urine was passed in a very small stream—in fact, sometimes dribbling away. It was very thick, alkaline, containing a large amount of ropy mucus, and presenting under the microscope an immense quantity of triple phosphates. Attempts were made to pass an instrument, but without avail, as the urethra was in an exceedingly irritable condition, and bled much every time a catheter was passed. About a week before his death he was seized with a severe attack of rigors, followed by pain and swelling in the perineum; he had almost total suppression of urine, and became rapidly jaundiced. Large amounts of stimulants were given him, but without avail; the rigors continued unabated, and he died from exhaustion on the 1st of July.

Autopsy, thirty-four hours after death.—There was a considerable wound in the scrotum, which, however, did not open into the urethra. The aorta was dilated just above the cardiac valves; about the first part of the arch was a quantity of soft atheroma between the inner and middle coats of the vessel. The liver contained a few patches of fatty degeneration. The right kidney was enlarged and softened at many points; through its structure were minute abscesses: these were about as large as peas. The left kidney was atrophied, and the pelvis dilated; it contained no abscesses. Both ureters were pervious, and slightly injected; the right more so than the left. A large circumscribed abscess lay between the prostate and the bowel; this was about the size of a tennis ball. The bladder was dilated and hypertrophied. The walls were excavated by several pouches as large as chesnuts; these were lined with mucous membrane, which had been projected between the fasciculi. The orifices of the pouches were so minute as to be almost imperceptible. The urethra was slightly narrowed for a short distance, commencing two inches in front of the bulb. The mucous membrane was here thick and rough; there was a false passage to the left of the median line in the membranous part, where also was considerable irregularity.

ABSCESS IN AN ENLARGED PROSTATE AND IN BOTH KIDNEYS.

(Under the care of Mr. POLLOCK.)

The notes of the following case are condensed from the report of Mr. Woodhouse Braine.

Charles B——, aged fifty-four, admitted February 4th, 1863. About nine months ago he perceived that his stream of urine began to get smaller, and for the last few months he has had incontinence of urine, accompanied with aching pain in the region of the bladder. A catheter was passed after he had, as he thought, emptied his bladder, and about half a pint of urine drawn off, showing that he had enlarged prostate. A few days after admission he had increase of lumbar pains, with rigors, and his tongue became dry and brown. At this time he manifested much disinclination to move or talk, and he became drowsy. On the following day the drowsiness much increased, the breathing became stertorous, with subsultus, and he died on the 10th February, at ten P.M.

Autopsy, sixteen hours after death.—Body well nourished. The thoracic organs were healthy. The spleen was pulpy. The pelves of both kidneys were dilated and vascular; the cortical part was increased in thickness, and both organs were sprinkled with minute abscesses. The walls of the bladder were hypertrophied and fasciculated. The prostate was enlarged, and contained an abscess.

MIDDLESEX HOSPITAL.

ABSTRACT OF NOTES OF FIFTY CASES OF CANCER OF THE BREAST (OUT-PATIENTS).

(Under the care of Mr. T. W. NUNN.)

(*Concluded from page 30.*)

GROUP VI.

CASES OF TWO YEARS' DURATION.

CASE 33.—Caroline P——, aged forty-five. Dec. 3rd, 1860: The nipple of the left breast has disappeared by ulceration. The whole gland is more or less solidified, but especially at its inner and lower portion. The disease has existed two years; there is axillary enlargement and swelling of the arm; the suffering is intense.

Jan. 7th, 1861.—The lower deposit has ulcerated; pains extend over all the limbs.

April 19th, 1861.—Since last report the patient has been suffering almost without intermission. The entire gland is hardened, and is superficially ulcerated at many points. The patient died shortly after this date.

CASE 34.—Hannah P——, from Gloucestershire, aged forty-eight. Jan. 3rd, 1861: Has two round, tense, red, shining, protuberant tumours between the nipple and lower border of the right breast, the centres of which have excavated ulcerations. She first noticed a lump, the size of a bean, two years and a half ago, which gradually increased. About five weeks since she was seized with shivering and sickness, with pain over all the body. From that date the excavation has more rapidly progressed. The painfulness varies much, and its accession was very gradual.

Sept. 21st.—Reported to have returned to the country, and to have increased much in size, while the breast has been getting worse and worse.

The patient's family history is somewhat interesting. The father was living, aged seventy-four; mother died of "dropsy," aged sixty; maternal aunt died of cancer of the breast; father's aunt died of the same affection; first cousin died of cancer of the womb, and a sister died of ovarian dropsy.

CASE 35.—Eliz. H——, aged fifty-nine, from Wiltshire. June 10th, 1861: Has a small tumour above the nipple in the left breast, which has existed during eighteen months. No further report.

CASE 36.—Eliz. H——, aged fifty-five. June 12th, 1862: Has a contracting scirrhous mass, the size of a small orange, below and to the outer side of the nipple of right breast, which was discovered one year since. The nipple is so retracted as to be hidden. She suffers much from pain; is liable to rheumatism in the left ankle. The arm does not swell.

Dec. 1st.—The axilla examined carefully to-day. There is no enlargement.

April, 1863.—Patient cheerful. The disease has made but little progress.

May 28th, 1863.—About the same.

CASE 37.—Mary H——, aged forty-two. June 12th, 1862: Has a tumour of the right breast, with enlargement of the axillary glands. Disease commenced one year since. She is thin, and has suffered from hæmoptysis or from hæmatemesis, and has been under the care of Dr. Chorley at the St. Marylebone Dispensary for the complaint. She suffers much pain in the breast.

July 27th.—Breast has been very painful, but has not increased in size.

Oct. 23rd.—Has been in the country for some weeks; breast about the same.

Feb. 5th, 1863.—Several pea-like nodules have made their appearance around the tumour.

March 5th.—Disease spreading.

26th.—Nodules inflamed.

April 4th.—Numerous nodules have invaded the breast of the opposite side within the last fortnight.

CASE 38.—Mary S——, aged fifty-one. August 14th, 1862: Has a yellowish countenance; and in the left breast, on its axillary aspect, there is a deep excavation, discharging an offensive ichor, which has existed during eight months. It is two years since the tumour was discovered. The edges of the chasm are fungating, spongy, and ready to bleed. The axilla is painful, but there are no enlarged glands in that part.

Oct. 16th.—The sore bleeds much, and the discharge is very offensive. Advised to enter the hospital.

March 5th, 1863.—The patient remained some time in the hospital, but discharged herself. The fungations are abundant, but she looks better than at her first visit.

April 28th.—Patient reported as confined to bed; frequently loses blood from the wound.

CASE 39.—Fanny B——, aged forty-nine. Oct. 2nd, 1862: The left (?) breast is large, uniformly indurated, but with some tubercles upon it, shining and painful. Two years since she discovered a tumour the size of a nut. The great increase has taken place during the past six months.

The patient was visited at her own home in January, 1863, and was found to be in a helpless condition. She died soon after (acute cancer)—Feb. 21st, 1863.

CASE 40.—Diana C——, aged seventy-two. Nov. 17th, 1862: She has numerous indurated patches, apparently involving the skin only, of the right breast. These have been in existence during two years. There is no swelling of the arm.

March 16th, 1863.—Several of the indurations are superficially ulcerating. The patient has suffered much from diarrhœa lately.

April.—Local condition about the same. (Still under observation.)

GROUP VII.

CASES OF LESS THAN TWO YEARS' DURATION.

CASE 41.—Harriet B——, aged fifty-two. March 9th, 1863: Twenty-one months since she received a blow on the left breast; there was in consequence considerable swelling, which after a short time almost subsided. Lately, however, it has again increased. She has been living worse and working harder, and now there is a hard, irregular nodule at the upper part of the gland. There is some infiltration into the adjacent tissue; but the tumour is movable, and the skin over it is firm, thin, and vein-marked.

CASE 42.—Sarah S——, aged thirty-seven. April 24th, 1862: Has a hard, knotty tumour in the upper part of the left breast, with extensive axillary enlargement; found the first of the tumour as a small nut, and the axillary enlargement only eleven months since. Her general health is pretty good. She has a brother who has been bed-ridden for fourteen years with chronic rheumatism, and to him the patient has devoted herself. (No later report.)

CASE 43.—Henrietta M——, aged seventy-eight, from Maidstone. Dec. 8th, 1862: Has two semispherical tumours to the axillary border of the right (?) breast, hard and shining, accidentally discovered fifteen months since; never painful. The arm does not swell. Has no symptoms to complain of.

Jan. 12th, 1863.—No change either in the tumours or in the general health. To return to the country.

The sister of the patient has a fatty tumour of two years' standing at the edge of the axilla of the right side.

CASE 44.—E. M——, aged seventy-eight. March 26th, 1863: Twelve months since she discovered a tumour the size of a pea in the left breast; it is now as big as a walnut. She has had ten children; but never suckled with this breast in consequence of the smallness of the nipple. There is slight axillary enlargement.

April.—Nothing to report. (Still under observation.)

CASE 45.—Ann B——, aged sixty-one. May 29th, 1862: Last January the nipple began to sink into the breast (left side). There is no pain, no axillary enlargement or other symptom than the retraction of the nipple, with central induration, indistinct from the abundance of fatty integument.

June 12th.—No change.

July 10th.—The breast rather softer.

CASE 46.—Mary Ann S——, aged sixty-eight. Oct. 23rd, 1862: There is a minutely nodulated lump in the left breast above the nipple, between it and the upper border of the gland. There is axillary enlargement. The tumour is not painful excepting at change of the weather. It was first noticed by the patient six months since, from pain occurring in it after the patient had suffered from a severe attack of diarrhœa.

No further report.

CASE 47.—Sarah S——, aged thirty. June, 1860: There is a tumour the size of a small orange between the nipple and outer border of the right breast; it is nodulated, hard, and puckered; has existed during nine months. The patient was delivered of a child three months since.

No further report.

CASE 48.—Mary E. R——, aged seventy-three. Brought under Mr. Nunn's notice by Dr. Ayling, of Great Portland-street. April 2nd, 1863: Has swelling of the right arm, with considerable œdema; this has existed since last August. There is an indurated furrow below the right breast, close to which are several melanotic warts; a great abundance of brownish, flat warts cover the skin in the neighbourhood, and there is a hard, circular, smooth wart on the right side of the forehead. The patient's attention had never been drawn to the condition of the breast as above described. She had complained only of her arm.

CASE 49.—Mary W——, aged fifty-two. June 15th, 1860: Has two more or less semiglobular protuberances between the nipple and lower border of the right breast. Suffers considerable pain. There is a small encysted tumour over the sternum. Patient was subsequently admitted into the cancer wards. Died Dec. 28th.

CASE 50.—Johanna C——, aged fifty-four. October 24th, 1861: Has a nodulated contracting cancer of the right breast. The arm does not swell; there is but little pain. The patient is a short, healthy-looking woman, entirely without any indication, as regards her countenance, of being the subject of a fatal disease.

ST. BARTHOLOMEW'S HOSPITAL.

UNUSUAL SITUATIONS OCCUPIED BY TWO TUMOURS SUBMITTED TO ABLATION.

(Under the care of Mr. LAWRENCE and Mr. PAGET.)

AN elderly woman, of regular habits and good general health, was admitted with a lobulated growth the size of the fist, involving the left nympha and glans of the clitoris, of many years' duration. By its pendulous position it blocked up the entrance into the vagina. Under chloroform it was removed by Mr. Lawrence with the écraseur on the 18th instant, and was found to be an hypertrophy of the subcutaneous areolar tissue as seen in elephantiasis of the scrotum and other parts. No hæmorrhage followed the operation, and the removal of the tumour was complete and satisfactory.

A female child, four years of age, was brought into the operating theatre on the same occasion, the subject of a circular tumour, the size of an orange, springing from the anterior part of the sole of the left foot. Its dark colour and general appearance gave it a resemblance to fungus hæmatodes. Mr. Paget remarked that it had been twice before removed, and had first appeared when the child was four months old. Its recurrence argued in favour of malignancy, but on removal (under chloroform) by Mr. Paget, it was found to consist chiefly of small cysts filled with serous fluid and blood, and a small solid portion as large as a walnut, which he could not undertake to say was or was not malignant. The tumour sprang apparently from the deep plantar fascia, and did not involve any of the structures near the tarsal bones.

HOSPITAL FOR THE EPILEPTIC AND PARALYSED.

CASE OF SYPHILITIC PARALYSIS; SPECIFIC TREATMENT; RECOVERY.

(Under the care of Dr. HUGHLINGS JACKSON.)

GEO. C——, aged twenty-two, was admitted August 25th, 1862. For the previous twelve months he had been an officer's servant on board a man-of-war. In February he had a chancre, and was on the sick list for three months, although he still continued to do the work. In June he was sent on shore for syphilitic rheumatism and for sores on his legs.

When Dr. Jackson saw him, there were patches of well-marked syphilitic eruption on the legs, arms, and trunk; some of them were gyrate. His general build was good, and he had had good health until the chancre appeared. When admitted, his health, except for the paralysis, was good in every respect. He could not close the hands; in fact, he had not the least

power of flexion, but could extend the fingers easily. There was no loss of power in moving the arms; for although he could not flex the fingers in the least, he could bring the hands down on the table with great force. There was also loss of sensation as high as the wrist, so much so that he could not feel when severely pinched. The fingers were red and glazy-looking. The hands were equally affected both in the extent and degree of the paralysis. As there were no other symptoms of disease of the nervous system, and as he was young, and had at the time a syphilitic rash, large doses of the iodide of potassium (ten grains) and a small quantity of the protoiodide of mercury (one-eighth of a grain) were given three times a day. He took this until September 15th, when his gums were slightly affected. The mercury was therefore omitted, and the dose of the iodide of potassium was increased to fifteen grains.

On Oct. 13th there was no perceptible alteration, but the patient said he was better. He was then directed to take five grains of Plummer's pill every night and morning, and still to take the iodide and also ten grains of the bromide of potassium three times a day.

He now improved slowly. On Dec. 15th he could grasp a little, and on Jan. 15th with some firmness; and when last seen, a few weeks ago, he could use the hands for most purposes well, but not for anything requiring delicate manipulation. He could write, but he held the pen clumsily. There was a little wasting of the muscles of the thumb, and for this galvanism had been used, but only for the last few weeks. The great improvement was before the application of galvanism.

The treatment in this case was rather complicated, so that it would be difficult to assign its proper share to each of the drugs used. The bromide was given in the hope that it might possess anti-syphilitic properties in some degree like, and possibly superior to, those of the iodide. Dr. Brown-Séquard, however, states that it has been extensively tried in syphilis, and that it has no influence on it whatever.

Reviews and Notices of Books.

BOOKS FOR THE SEASON.

A Guide to the Western Alps. By JOHN BALL, M.R.I.A., F.L.S., &c. pp. 377. Longman.

Home Walks and Holiday Rambles. By the Rev. C. A. JOHNS, M.A., F.L.S., &c. pp. 273. Longman.

Where shall we go?—a Guide to the Watering-places of England, Scotland, and Ireland. pp. 279. Edinburgh: A. and C. Black.

Chambers's Handy Guide to Paris. pp. 181. W. and R. Chambers.

NOW that the season for travelling has fairly set in, there is the usual issue of guide-books and others to facilitate and to make pleasant the ways of the tourist. Amongst those which have just been offered to the public those at the head of this notice have been forwarded to us for review. Though differing in many particulars in their scope and aim, they have, at all events, something in common. Mr. Ball's book on the Alps is, we believe, the first attempt made by any writer to give to the world a systematic guide-book of this interesting region. The members of the Alpine Club have made several most important contributions to this department of research. Mr. Ball has attempted, and we think successfully, to furnish the tourist of the Western Alps with a reliable and most valuable vade-mecum. To say that it is complete in all particulars would go beyond even what the author either expected or intended; but it contains a mass of information which must be found of great service to all travellers in this until lately almost unknown region. It affords copious instruction as to passports, money, custom-house regulations, and electric telegraph and post offices. It indicates the routes for approaching the Alps; gives the plan of the tour; and furnishes information as to modes of travelling, guides, porters, and inns. In addition to these, it contains general advice to Alpine travellers; and also chapters on mountaineering, climate and vegetation of the Alps, châlet life, Alpine zoology, meteorology and hypsometry, instruments used by travellers, the snow regions, glaciers, avalanches, and geology. It contains, in addition, a list of all the authorities to be consulted on the geology of the Alps, as well as of works and maps relating to them. On all these subjects there is copious and lucid information. The work is illustrated by several admirably executed maps. Mr. Ball has succeeded in supplying the Alpine traveller with a valuable pocket companion—one that will contribute greatly to his assistance, instruction, and amusement.

Though we have placed the Rev. Mr. Johns' volume under the head of "Books for the Season," it is in reality a book for all seasons; but inasmuch as it is well fitted to be the companion of that numerous class who spend their holidays amongst the woods and fields of their own country, we notice it here. It is a work that makes no pretensions to originality on the score of wonder or of adventure: but it contains a mass of the most interesting and useful information on many subjects connected with natural history which are likely to interest the lover of nature. Combining amusement with instruction, and avoiding those technicalities which occasionally deter the sojourner in the country from perusing such works, it offers him a text-book as it were, for all that he can require to enjoy in country life. Without the elaboration which characterizes White's celebrated work on the "Natural History of Selborne," it forcibly reminds us, in many particulars, of that unique and fascinating volume. In these times of "sensation" stories, and of works that appeal to the imagination and the feelings, Mr. Johns' "Home Walks and Holiday Rambles" is a welcome addition to our current literature. It has all the interest of a novel, and is as instructive as a small cyclopædia of natural history. It stimulates the reader to that actual observation for himself which constitutes the foundation of all true knowledge. We shall be rejoiced to see the example which Mr. Johns has set followed out. A healthy tone of mind is essential to a sound condition of body. Whilst violent emotions and the undue exercise of the imagination tend to disturb the proper balance of the mental faculties, books like that under notice promote a healthy vigour which is so essential at the present time to counteract the morbid influence which is exerted by too many of the popular works of the day. We cordially commend Mr. Johns' volume to the notice of "parents and guardians."

"Where shall we go?" is a question that it may reasonably be expected will be asked by many a paterfamilias of those immediately interested at this particular period. The family circle, before they answer this question in the family parliament, may, and no doubt will, receive all the assistance they require by carefully referring to the very able work issued by the Messrs. Black. Whether their destination for the holidays in England, Wales, Scotland, or Ireland be of the greatest advantage to them, a reference to the unpretending little volume which bears the significant title of "Where shall we go?" will satisfactorily answer.

Messrs. Chambers have issued, in a cheap form, a Guide to Paris, which for completeness and interest has no rival. For the small price of a shilling they have produced a volume not only containing a great mass of useful information, but well illustrated by maps and woodcuts, which must astonish the most ardent admirers of cheap literature.

Anatomical and Physiological Observations, Part II. By JOHN STRUTHERS, M.D. Univ. Edin., F.R.C.S., &c. Maclachlan and Co.

THIS second part of Dr. Struthers' Observations contains six papers, some of which have already appeared in these columns. The first essay is "On Resuscitation by Jugular Venesection, Anatomically and Experimentally considered, including the Demonstration of the Presence of Valves in the Veins of the Neck." In this the author shows that the right auricle may be relieved, when over-distended, by jugular venesection; and that not only the auricle, but the right ventricle also, owing to the safety-valve action of the tricuspid valve, may thus be disgorged in cases of asphyxia. Of course, in

operating with this object in view, no obstruction must be offered to the flow of blood by the thumb of the operator, as is usually done; and the author maintains that there is no danger of the entry of air so long as the blood flows and no efforts are made at artificial respiration. The right side of the heart having thus been relieved and the aperture carefully closed, Dr. Struthers believes that artificial respiration may be much more hopefully resorted to than under ordinary circumstances. The "Demonstration on the Use of the Round Ligament of the Hip-joint" has already appeared, in its entirety, in THE LANCET, and need not, therefore, be further discussed.

An interesting "Description of a case of Double Uterus" and an essay "On the Solid-hoofed Pig," are followed by a laborious dissertation on the "Relative Weight of the Viscera on the two Sides of the Body," in which the author has entered upon an elaborate series of experiments proving that the centre of gravity is to the right side. The concluding essay of the volume "On Variation in the Number of Fingers and Toes, and in the Number of Phalanges in Man," is an admirable and philosophical account of several remarkable cases of abnormal hands and feet which have come under the author's notice, and the principal features of which he has recorded in a lithographic plate. The hereditary transmission of the peculiarity is clearly made out in many of the cases. The volume is altogether one of considerable interest, and does great credit to the author as one of the foremost amongst philosophical anatomists.

Parturition without Pain or Loss of Consciousness. By JAMES TOWNLEY, M.R.C.P. Ed., F.R.C.S.E., &c. Third Edition. London: J. W. Davies.

THE opponents of Dr. Townley's plan of relieving the pains of parturition cannot justly accuse him of any attempt to withhold his "discovery" from the members of his profession. He fully and fairly enunciated his practice in the pages of this journal. Malice itself ought to have been disarmed by the openness and candour of his conduct. It is not so, however, and he has been subjected to what we conceive unmerited and unjustifiable abuse. He has placed his theory and practice honestly before his brethren. His principles have not been controverted, his practice has not been assailed, but his motives have been impugned. Criticism fails to obtain influence when it ignores facts and relies upon inuendoes and groundless assertions. Dr. Townley's little *brochure* has deservedly reached its third edition.

Christian Morals. By Sir THOMAS BROWNE, Knt., M.D. pp. 143. Rivingtons.

IT has been too much the fashion among superficial observers to identify the members of our profession with atheistic and latitudinarian ideas with regard to Christianity. It is impossible to conceive a grosser libel on the practitioners of medicine. If we were at a loss for an answer to such cavillers, we might refer triumphantly to the volume before us, and we would clinch the argument by a reference to Sir Thomas Browne's admirable work, "Religio Medici." But it must not be forgotten that, while we claim the right of our brethren to be regarded as foremost among defenders of the faith, and while Sir Thomas Browne stands conspicuous in the rank of its champions, we number among our associates some of the greatest metaphysicians, some of the most eminent natural theologians, and some of the most practical Christians that have adorned the field of religious literature. We repudiate that wretched doctrine which would exclude scientific inquiry from the elucidation of religious facts. If the depository of Christian knowledge and of Christian morals was confided mainly to the fathers of the Church, the fathers of Medicine claim no unimportant position in their maintenance of the truth. Sir Thomas Browne was a sagacious physician, a learned and truly great man. He was fully alive to the importance of the calling with which he was more intimately identified; but he joined with it a higher duty. Medicine in his view was inseparable from the highest duties of a Christian; it was a work of charity—that charity which "covers a multitude of sins"—unostentatious, but practical.

Every Man's own Lawyer: a Handy Book of the Principles of Law and Equity. By a Barrister. pp. 336. Lockwood and Co.

WE are as far from assenting to the doctrine that every man should be his own lawyer, as from that which teaches that every man should be his own physician. There are so many exceptions to either rule that it would be simply absurd to attempt to enforce it. But general principles in regard to both law and physic may be enunciated with advantage to society. "Every Man's own Lawyer" is a favourable specimen of an attempt to popularize the general principles of law. It is certainly worth the six and eightpence at which it is published.

CHOLERA IN INDIA.

To the Editor of THE LANCET.

SIR,—With reference to my letter which appeared in THE LANCET of the 11th inst., p. 52, I beg leave to say that I have received the copy of a communication addressed to the Horse Guards by Dr. Gibson, Director-General Army Medical Department, stating that as he has not been made acquainted *officially* with the report on the outbreak of cholera in India in 1861, he requests that I should be called on to say *from whom* I had received that report.

The questions at issue are these: Has the Army Medical Department ever studied cholera scientifically? Are they acquainted with the pathology of cholera, and with its rational medical treatment? Not what the report—which is an hygienic, not a pathological, report—says.

However, I have informed the Horse Guards that the copy of the above report is at the India-office; and that I have requested Dr. Bird, who has a copy, to allow Dr. Gibson to see it. But in justice to myself I have pointed out that Dr. Gibson has the proofs in his office that what I have stated is correct, without requiring to refer to the above report.

I have informed the Horse Guards, that Dr. Gibson allowed me to see the Army Medical Reports which are filed at his office for the inspection of the medical profession; that I saw by the inspection of these reports what I have stated—that the Army Medical Department have never studied cholera scientifically, &c.; that I have again and again, by private interview and by official correspondence, called Dr. Gibson's attention to the above facts, but in vain.

I have again repeated my offer to the Horse Guards to appear before any commission *acquainted with medical science* and demonstrate to them that I am right to press for inquiry, and that Dr. Gibson is wrong to oppose inquiry. In 1809, when the army hospitals had become pest- and slaughter-houses, inquiry was pressed for, but resisted by the authorities till the House of Commons interfered; and it is on record at the War Office, that the then Army Medical Board admitted that they were unacquainted with medical science. No doubt times and men have changed, and that there is more professional knowledge at present at the Army Medical Department than there was then.

But still the question at issue remains—Has the Army Medical Department *ever* attempted to study cholera scientifically? With submission they will permit me to say, that not only have they not studied this disease scientifically, but they have not the medical knowledge to appreciate and to profit by the pathological researches relative to this disease which have been placed before them; they have blindly accepted the errors put forward by Messrs. James Jameson and Wm. Scot; they blindly follow these errors and injure their patients, if they do not assist the disease to destroy them.

I remain, Sir, your obedient servant,

D. MACLOUGHLIN, M.D.,
Member of the Legion of Honour.

Bruton-street, Berkeley-square, July, 1863.

DR. LIVINGSTONE.—Advices have been received from this enterprizing traveller. Fever and sickness have prevailed to a considerable extent among his crew, but no fatal cases have occurred.

THE LANCET.

LONDON: SATURDAY, JULY 25, 1863.

AMONGST the wants of the country are hydropathic institutions, comprising every variety of bath, conducted by men of sound judgment and acting upon sensible and scientific principles. The rarity of such establishments in this age of device and accommodation is remarkable. Every intelligent practitioner must, in the course of his practice, often feel conscious of this want, and at a loss what to do with an overworked or ill-used constitution to which rest, a regulated diet, fine scenery, good society, the judicious use of cold water, and a sensible physician would be invaluable. Orthodox medicine is not without blame in this matter. Sometimes amused by and sometimes disgusted at the nonsense that has come from the prophets of the water school, it has well nigh given over water, and all the modes of using it, into the hands of fanciful or irregular men, and given up in despair the attempt to dissociate it from homœopathy, mesmerism, and the other quackeries of the day. It had been better if orthodox medicine had distinguished between water and its fanciful patrons, and provided for its patients institutions in which they might receive whatever benefit can be had in a well-placed establishment, without the evil which often, in our experience, follows a residence in most of the existing ones.

This evil is quite peculiar. It is a species of hypochondriasis. It seems as if the water, somehow, got into the patient's head and did not strengthen it. Whatever the explanation, we have so often noticed the fact of a patient becoming incurably hipped and nervous and fanciful after a visit to a hydropathic institution, that it now weighs materially with us in recommending such a visit to patients to whom, but for this fact, such a visit would appear to be the very thing indicated. We have too high an opinion, however, of the value of water as a physiological and therapeutical agent, and too much fondness for its use as a personal habit, to imagine that the explanation of this fact is to be found in any mysterious action of this simple agent itself. The judgment of patients in the important matter of their own health is not impaired by the use of water. Probably it is as little impaired by the medicaments used in such establishments, which, for all practical purposes, may be regarded as water too. Where, then, are we to find the explanation of the peculiar effect of a residence in these institutions? We suspect it will be found in the peculiar medical doctrines which are fashionable there, and in the medical education to which each patient is subjected during his stay. Every patient is appealed to as an umpire in regard to the rival medical doctrines of the day, and his sympathies are bespoken in behalf of all persecuted innovators whose position and merits, with equal plainness and modesty, are shown to be perfectly analogous to those of HARVEY, JENNER, &c. It follows that patients are made the receptacles of an incredible amount of nonsense in the shape of false physiology and pathology. They come away with infinite admiration of the presiding genius who has so glibly unfolded to them all the mysteries of health and disease, and with their own insight into these so quickened that they are ever after detecting ailments which have no existence but in their own imagination, and for which hydropathy is the great specific. We have only to consult the favourite authors of the frequenters of water establishments to understand their notions of health and disease. The writings of these authors are eminently Readings-made-Easy. They dispose of all the deep problems of physiology and all the crack subjects of domestic medicine, from constipation up to consumption, with delightful fluency and facility. They ignore all the improvements of regular medicine, sometimes—evidently—from sheer inability to perceive them, at others from an ill-disguised determination not to admit them. The construction of some of these books is amusing—e. g., "SMEDLEY'S Practical Hydropathy, 3*s.* 6*d.*" The bulk of the book is made up of long extracts from medical writers, sometimes of the regular and sometimes of the hydropathic school. But Mr. SMEDLEY does not always quote, and his original remarks will never involve him in any charge of plagiarism. They are all his own. At page 90 he pains us by informing us that his "space" will not allow him to go into the intricacies of the subject of "Diseases of the Kidneys." The short extracts which we mean to give will satisfy our readers that it is from no want of ability that Mr. SMEDLEY dismisses renal subjects rather summarily.

"I give in this work a clever engraving of the bloodvessels and absorbents in the kidney. It will be seen how delicate and wonderful the action of the Malpighian *tubes are;* for through these knots of bloodvessels the uriniferous tubes which cover them draw out, by *their electrical power of attraction*, the urine from the blood."

Mr. SMEDLEY'S pathological strokes in the renal sphere are even more original than his physiological ones,—e. g.:

"The uriniferous tubes, when diseased, draw out, with the urine, serum and the life of the blood, bringing on—[one would think he was really going to stumble upon a roughly correct sentence about albuminuria; but no—bringing on] *diabetes*"!

But do not let it be supposed that the author is not acquainted with albuminuria. He shows that he is not only familiar with this disease, but with the causes of it; and he shows all this in one sentence. It is only hydropaths and the like who can dispose of great subjects in a few words. It would puzzle Dr. CHRISTISON or Dr. JOHNSON to put so much into a single sentence.

"Another and primary cause of disease is the presence of albumen in the urine, from *the lowered vitality of the nutritive nerves not having power to keep up the healthy chemical compounds.*"

Here is wisdom which to the admiring votaries of Matlock must be dumbfounding. One other sentence on the cause of diabetes:—

"The cause is that, instead of quieting the inflammatory action going on in the kidney (and especially in the Malpighian *tubes*), porter, wine, and flesh meat are ordered in profusion, along with physic, increasing the inflammation in these parts."

What condensed profundity! What to such a man are the discoveries of BERNARD or of BROWN-SÉQUARD? What are nucleated cells to a man who has electricity at his finger ends or in his *Malpighian tubes?* What the saccharine function of the liver to one who confounds diabetes with albuminuria? What the desquamation of epithelium and its consequences to one who has learned to talk about the "lowered vitality of the nutritive nerves?"

The intellectual incapacity of these hydropathic guides is shown by the fact that even in regard to water they very much miss and misconstrue the teachings of science. Their notions of the action of water are remarkably rough and mechanical. In their view the action is mainly or only one of temperature—of so much cold or so much heat. Revulsion and reaction, contraction and dilatation, summarize their theories on the subject. Take as an example the following sentences—hydropathic sentences—from EDWARD JOHNSON, M.D., a writer much respected by hydropaths:—

"Thus, then, however numerous be the *forms* or *symptoms* of disease, there is, de facto, but *one disease*. And, however numerous may be the means and appliances of the healing art, there is but *one intention* to be fulfilled—the restoration of the capillaries to their normal dimensions by *constringing their coats*." (The italics are Dr. JOHNSON'S.)

By the way, this gentleman gives a fine illustration of the rate at which men who have hobbies adopt theories which seem to support the hobbies. We have treated our readers to short specimens of false physiology and pathology. Let us now give them a specimen of hydropathic chemistry.

"We also *know* that alcohol once admitted into the body never quits it again in the form of alcohol, which *proves* that its elements (carbon and hydrogen) have undergone decomposition and recombination into other forms within the body."

Our readers know exactly the reverse of this to be the case; a more perfect chemistry having scattered to the winds Dr. JOHNSON'S *knowledge* and *proofs*, and demonstrated that alcohol passes through the body unchanged, and is to be found as such in the urine, the breath, &c. But Dr. JOHNSON'S chemistry goes further than to the decomposition of alcohol in the body. He sees reason for supposing that *because* the lungs absorb oxygen from inspired air, the stomach may have the power of decomposing water (!) and absorbing oxygen, and the skin likewise. Either the benefits of using water or the ignorance of those who use it, or both, must be very remarkable, to explain such remarkable theories. Surely a knowledge of general chemical and physiological literature, or a personal observation of a number of facts, would prevent such absurdities. But both of these things imply study and trouble; and men who have an omnipotent and all-applicable remedy neither need nor feel inclined to either reading or trouble, excepting in the special sphere in which they move with such delight. Accordingly the latest and the brightest lights in the hydropathic firmament betray the same fatal tendency to theorize, to set up straw men and knock them down, and to talk nonsense glibly, which we have shown to characterize Mr. SMEDLEY. The Malvern guide is unmistakably like the Matlock one. He is evidently as profoundly unsound in his views as to medical science generally as a late trial showed him to be in regard to the signs of pregnancy. He knows that calomel and opium and guaiacum and colchicum have been used in rheumatism; but he does not seem to have heard of an alkaline treatment of it. Perhaps it is too recent, perhaps too unheroic to sound well for purposes of abuse. He informs his readers that the heart mischief in this disease is connected with "excessive irritation," caused by "mercurials and colchicum," rather than with the disease itself. If a medical man were to make a statement like this in the society of his peers, he would be asked for proof and for an explanation of the fact that heart affections happen in rheumatic disease when neither mercurials nor colchicum are used, and do not happen in other diseases when they are used. But Dr. GULLY does not write for his peers, but for his patrons, and he knows they cannot contradict him, or are easily gulled. His physiology is as antiquated as his pathology. Let us give a specimen or two.

"The secretory power of the bloodvessels."

To speak of the secretory power of bloodvessels is as correct as it would be to speak of the hearing power of the eyes; and the author of such an expression, years after the discoveries of SCHWANN, GOODSIR, and others, must be living in the backwoods of physiological science.

The cause of the sensation of hunger has always been a difficulty with physiologists. The beauty of writings of the GULLY class is that they suggest no difficulties. One is borne easily and in a sentence to the solution of the most puzzling problem. Let us have no more speculation on the cause of hunger, for here we have it:—

"The cold of the water stimulates the extremities of the nerves which come from the brain and spinal cord to the muscular coat of the stomach and convey sensations to and from those parts. The result of this stimulation is contraction of the muscular coat, and *this contraction constitutes hunger*."

The italics are Dr. GULLY'S. The proposition will not appear so obvious to our readers, who must generally have noticed the drinking of large quantities of cold water to correspond with the entire absence of hunger. But Dr. GULLY is dogmatic. Cold water causes contraction, and contraction constitutes hunger. So true is it that the hydropathic philosophy dreams only of cold and constrictions and their opposites.

But we must desist. Time and space would fail us to expose a very small portion of the stuff which makes up the four or five hundred pages of these water-cure books, which are meant for sale at railway stations. We are not concerned in any detail to refute the nonsense and misrepresentation which they contain. The public will continue to perceive, in spite of them, the progress of true medical science and the power of well-selected remedies. It will continue to believe that water is only one of many remedies; that there are many things which it cannot do; that it cannot cure ague like quinine, nor syphilis like mercury; that it cannot always relieve pain, nor expel tapeworm like fern oil, nor feed phthisical patients like cod-liver oil. The evidence of these things is much more obvious both to the public and philosophers than that "bloodvessels have secretory power," and that "the contraction of the muscular fibres of the stomach causes hunger."

The lesson from all we have said is simply this: it is high time for us to have sanitaria in which our patients may have the full benefit of air, water, and exercise, without returning to us fanciful and hypochondriacal. It is a great unkindness to teach a man the habit of searching his own body for stray sensations and contemptible derangements; to encourage the notion that the body is so organized as to be constantly apt to go wrong, apart from the costly and complicated devices of a water establishment. We protest, in the name of science and humanity alike, against a system that demoralizes men in the matter of their health. It is no compensation to such a man to reveal to him a universal remedy. Once concentrate the attention of the mind upon the body, and both must speedily suffer. Health is a thing to be taken for granted. True, it must always depend upon a due supply of air, water, exercise, &c.; but these, too, are to be taken for granted—

not as remedies for disease, but as mere conditions of health. To give a medicinal character to these is to make every healthy man a patient, every meal a dose, the world an hospital, and life itself "one long disease."

Occasionally, no doubt, water may have the true character of a great remedy. It is an immensely preponderating constituent in the composition of the tissues. It has been shown to have the power of increasing the change and removal of tissue, and in this best of ways of increasing appetite. These are great powers, and scientific medicine only wishes to be able to use them at the greatest possible advantage, and with the least possible injury. We believe there are water establishments in which the light of BERNARD and BÖCKER shines. We only wish to see their number increased.

BEFORE another number of THE LANCET appears the medical scholastic session will have drawn to a close: students will be leaving London, teachers will be preparing for a holiday, and many of the representatives of the higher walks of the profession will be looking forward to resigning for a few weeks the cares and anxieties of practice into their juniors' hands. It has long been our custom to address a few words at the *beginning* of each session to those more immediately interested in the opening of the professional campaign; and the practice is not a bad one, for a good opportunity then occurs for proffering them such cautions and advice as evidently cannot have in view upon our parts any selfish ends. But notice is rarely taken of the termination of a course whose commencement was heralded with so much concern. Yet surely a retrospect of the mode in which an important work has been performed, and a scrutiny of its produce, cannot be less profitable to the labourers than was the previous survey of the responsibilities that lay before them when they began their undertaking. If to know what one has to do be meet, to be clear upon what has really been effected is not less proper. The harvest and vintage are as important to the husbandman as are the seed-time and pruning. We break through the custom, then, of allowing our students to depart and our teachers to become silent without venturing to inquire of them both what they have effected. Ten months back they stripped to the labour: one to follow the footsteps of knowledge and of experience; the other to lead the way. Each party to the contract protested, in more ways than one, to properly and conscientiously fulfil his duty. Has this reciprocal engagement been honestly performed? Has the student been punctual and attentive to his hours of attendance, industrious out, and studious at home? Have the dissecting-room, the chemical theatre, and the out-patients' department regularly received that share of the junior student's attention which it was his duty to give? Have the clinical lectures upon medicine and surgery, the visits through the wards, and the post-mortem examinations been diligently followed by his senior companions? In fine, have they both gone through the session now closing with such industry and thoughtfulness as prove that they were fully alive to the great responsibilites they so freely accepted at the beginning of the term? If such has been the case, well and good. With respect to many—nay, we will say further, with most—of our young friends we believe their obligations have been satisfactorily responded to; and unfortunate for them, indeed, in the future, if they have not. If there be any who, in such a review as we have here indicated, cannot honestly do otherwise than admit that too often they have been late at lectures or entirely neglected them, shunned the anatomy rooms and shirked their chemistry, joked and idled in the halls instead of going round at visit, or "cut" the "clinicals" altogether, let them pay heed to our solemn warning, that unless they alter greatly in these respects heavy will be the penalty. Their opportunities once let slip cannot be recalled, and the day will assuredly come when they would give any price to recover the advantages and benefits that were formerly at their command. If, then, the student would be satisfied that he is making such progress towards the perfecting of his hospital education as will send him up comparatively an unhesitating candidate to his professional examiners, as will permit him to commence practice without unnecessary anxiety, and as will give him the reputation of being a trustworthy medical practitioner, let him honestly review, at the termination thereof, his career through every medical session of the schools.

But if it be right that we should expect this consideration from the pupil, it is not the less incumbent upon us that we should inquire of the teacher if *his* part has been properly fulfilled. It is useless to talk of the idle, careless, and unpunctual habits of the former, if the latter do not set him a good example. How can a wavering and easily-tempted youth be kept to his labour if those who direct him become neglectful and irregular guides? Out comes every October a prospectus from each hospital making many promises of word and deed. The last time we addressed the student many of these were fresh before us. Nine or ten months have passed away, and now let us ask, Have these prospectuses been found to have spoken the truth? Have the lectures been properly and regularly given? have the wards been punctually attended to? and has clinical instruction been as freely offered as it was said it should be? In the majority of instances we doubt not that they have. But we cannot shut our eyes to the fact that the lecturer and hospital officer are occasionally found to be not above erring. How often, we would ask, have notices been placed up to show that the lecturer was prevented fulfilling his duty? How often have the physician and surgeon neglected to appear at the hospital at the hour when they were rightly expected? We fear that in too many instances the student has gone to the theatre only to find that "there will not be any lecture;" and that he has been kept anxiously waiting under the portico or in the halls of the hospital, to arrive at length at the news vouchsafed by the house-surgeon or dresser, that Dr. or Mr. So-and-so is unfortunately prevented from keeping his engagement. There are reciprocal obligations between student and teacher, and the one class must be performed as well as the other. Private practice and engagements are often, no doubt, very peremptory, and some little allowance must be made for quite unforeseen contingencies. But we are not wrong when we say that even a very slight exhibition of unpunctuality and broken faith on the part of hospital officers and teachers has a very detrimental influence, particularly upon the junior pupils. They live by example, and are extremely open to the general tone of conduct which surrounds them. If this be not always of the most conscientious kind, the injury resulting becomes at once apparent. Lectures are neglected; the wards are comparatively deserted; and the business of the session either dwindles down into a great joke, or becomes fostered into an exasperating nuisance. We trust,

however, that the session of 1862-63 will have proved so to but very few indeed of either pupils or teachers.

THE public mind has recently been shocked by a series of revelations of more than usual grossness. These exhibit in an unmistakable manner an amount of moral depravity few have hitherto believed to exist. It is worth while to inquire to what extent we should regard such "disgraceful disclosures" as indications of our social and moral status, and what steps are advisable to prevent the recurrence of practices revolting to every feeling of decency and propriety. A year has elapsed since a charge of a most detestable character was preferred against a member of the legal profession. The evidence before the magistrates was of a nature that left them no alternative but the committal of the accused. At the Central Criminal Court, when the case came on to be heard, points of law were raised which resulted in the trial being removed to the Court of Queen's Bench. As a consequence, the accused was permitted to put in bail for his appearance, and to return to his friends. Since then several terms have elapsed, and no further proceedings have been taken in the matter. The affair, therefore, stands thus: An imputation of a crime unfitting men for society still impends over the accused. If he be innocent, a more grievous wrong it is impossible to conceive; if, on the other hand, the complaint be well-founded, what a grave responsibility devolves on those to whom the public have a right to look for protection and redress! We revive this almost forgotten and yet undetermined accusation because it was the first in a series of occurrences of more than average profligacy. The public disgust had scarcely subsided in reference to it when it was again aroused by revelations not less prurient, though a degree less gross. Here, again, the accused occupied a position in society which implied the possession of education and the restraining influences of refined association. In the latter case justice was not permitted to linger, and the miserable defiler of parturient women is now paying the penalty of his infamous desires.

Disclosures of this nature, however revolting, cannot be regarded as other than examples of personal indecency and individual baseness on the part of men the victims of distempered morals and ungoverned lust. It is well to believe that they are exceptional illustrations of how far it is possible for man to become degraded. No good can result from their contemplation; while weak minds may be unsettled by the very intensity of their depravity. We therefore dismiss them from our consideration, and find in the more recent "extraordinary case" suggestions for inquiry into the moral condition of our metropolis. We allude to the prosecution for woman-flogging which has just eventuated in the summary conviction, and imprisonment with hard labour, of the aged procuress principally implicated. It was shown in the investigation that the practice exposed had assumed something like a system; that in a house in the centre of our metropolis worn-out debauchees, whose passions had outlived their powers, still found the means of arousing impotent desire by expedients which have hitherto had no parallel, at least in this country. A number of young women, or, as the prosecuting counsel termed them, "unfortunate children," were proved to have been habitually exposed in a nude state, fastened to "a machine," and flogged with rods by hoary lechers, in order to satisfy their abominable depravity. These poor victims were in their turn induced, or rather by threats compelled, to whip the veteran sinners, in order to recall vigour to the wasted energy of their exhausted frames. It was stated that the practice was not uncommon—an avowal happily in a measure disproved by an entry in a manuscript book found in the room were these orgies were usually carried on, wherein it was expressed that "that was the only house left where it was practised." Fancy the scoundrel who could pen such a lament! What if by some mysterious process each lash became a serpent to envenom his very vitals—who would say that more than justice had been done? He is yet at large, and, it may be, regards the proceedings with no other regret than such as results from the interruption of his pursuit. It may be that he contemplates some new plan for his old sin. If so, let him pause. For all such a day of reckoning comes, and woe be to him when it does come! We invoke justice to relax no efforts for the exposure and clearance of those hotbeds of vice which are included in the category of "known to the police;" or, if the law be inoperative for that purpose, to adopt at least some method whereby, on revelations such as these, NEMESIS may not be defrauded of her due in the person of those whose money supplies the inducement for the purposes of such crime.

The boasts of the present day are our advanced civilization, our Christian charity, our enlarged philanthropy, and our hitherto respectable character for morality. What will nations less pretentious in those matters think of disclosures such as these? True, that in the last few years we have fallen somewhat from our high pedestal of morality. Our social turpitude has, in the immensity of its baseness, distanced all petty crime. True, we have exposed family life to the scrutiny of the law, and laid bare the hollow deceptions with which hypocrisy occasionally invests our English homes. We have in this done much to diminish the respect of our character and our name, and for this we proportionally suffer. But we have not forgotten what we have strayed from, or abandoned what we have left. We are not indifferent as a nation to our vices as a people. The good old spirit of our forefathers yet lives, and causes us to regard with unmeasured disgust practices the perpetration of which by the exceptional few has shown to what a dangerous licence liberty may extend.

We do trust that some practical legislation will be accomplished in reference to those houses and their wretched inmates. We feel all the difficulty the question involves. If, on the one hand, it is not desirable that legislative recognition be extended to houses wherein vice is permitted to hold revel, and outcasts to assemble for the purposes of their shame, on the other hand is it to be tolerated that within the heart of our city practices are pursued, vices are perpetrated, and it may be even murders are committed, without some practical means of either protecting the weak or apprehending the guilty?

THE medical practitioners of Bedford have refused, very properly, to acknowledge the right of Mr. COOMBS to retain his homœopathic title of M.D., obtained from some American institution. In this they are supported by common sense and by the law of the land. If they had recognised the title, might they not have been fairly charged with being participators in a violation of the law? Certainly the degree which Mr. COOMBS possesses confers no legal title upon him in this

country. The Medical Council of Education both repudiate it as conferring a right to practise and refuse to acknowledge it as a title. As Mr. COOMBS has declared his intention of ceasing to act as a homœopathic practitioner, how can he consistently retain a title emanating from a homœopathic source? We confess that we do not understand so contradictory a mode of action. "Holding with the hare and running with the hounds" may be regarded, in some instances, as a very safe policy; but it is not to be tolerated in the present case. The members of the Bedford Medico-Ethical Association would appear, then, to have no option as to their recognition of Mr. COOMBS. It is to be regretted that a gentleman occupying a respectable position should have written a letter evincing so much passion and so little self-respect as that of Dr. WHARTON, which appeared in the last number of this journal. Dr. WHARTON seems altogether to mistake the merits of the question at issue. His brethren of the town and neighbourhood have avoided, as far as possible, making this question a personal one. They have enunciated a principle on purely public grounds. Nay, further, from the fact of Dr. WHARTON having been originally proposed as a member of the Executive Committee, it was evident that they desired to enlist him in the good cause. "To love the offender, yet detest the offence," is not inconsistent with human nature. Dr. WHARTON chooses his own position; it is to be supposed that he takes his choice with a full knowledge of all the facts connected with the transaction. Has he then a just right to complain if those who really wish him well differ from him in opinion? It appears from the rules agreed to by the Association, that the expunging of Dr. WHARTON'S name from the committee was regarded by them as an act of necessity—not of choice. They wished to retain it, but their rules forbade them. And so as to consultation: if Dr. WHARTON deliberately meets Mr. COOMBS, holding a homœopathic and illegal degree, he cannot complain if his brethren decline to meet him. Their object was union in a common cause, and they seemed to shrink from the responsibility of introducing an element of discord into their body. It must be recollected that we ought to exercise our calling on certain well-recognised rules of professional etiquette. Those laws have received the assent of the profession: they are clear, and generally well defined—they tend to elevate the position of medical practitioners in the eyes of the public, and to benefit the public itself by placing the medical practitioner in a high and intelligible position. Should those laws be ignored it is evident that the profession would sink into a trade. Medical associations like that of Bedford are established mainly for the purpose of carrying out the provisions of a code of honour. In carrying out those principles it may be necessary to sacrifice personal feelings. We unhesitatingly express our regret that both Dr. WHARTON and Mr. COOMBS were not found eligible to be members of the Bedford Medico-Ethical Association.

Medical Annotations.

"Ne quid nimis."

SEWAGE JUBILATION: THE METROPOLITAN MAIN-DRAINAGE.

THE Metropolitan Board of Works has been holding high festival. On Saturday, the 18th inst., the first completed portion of the vast Main-Drainage scheme was suffered to perform its allotted functions, and the Thames, at Barking, received its first instalment of those Stygian streams which have so long polluted London with foul and lethal vapours. The occasion was fittingly devoted to mutual congratulations and delectations on the part of the board, the engineers, and those most immediately concerned in carrying out the works. The Lords and Commons graced the inauguration of the far-conducted current of filth; and, doubtless, as they gazed upon the swift stream where it dashed into the river, they luxuriated in the pleasant hope that their own magnificent domicile would anon for ever be freed from the villanous odours which, alas! too often pervade it. A vain hope, perhaps, so long as the upper Thames is made the grand depository of the sewage of the increasing population on its banks. But let us content ourselves for the present with the work in hand. When this gigantic task is completed, and the Thames has become so far purified as no longer to assail unbearably our nostrils, then it will be a question whether any part of the population of London should still be condemned to drink the waters of a stream that remains the prime sewer of their neighbours towards the source. Well might Dr. Acland say, a little while ago, "Why the Londoners do not rise up in arms against us provincials for remorselessly pouring our sewage upon some of their water companies is a standing marvel. We may now assume that the elements of disease are carried in water; through what distance we do not know. Ordinary prudence should, therefore, keep the upper rivers above great towns as pure as is practically feasible."

On Monday and Tuesday, metropolitan Bumbledom, obedient to the courteous behests of the Board of Works, trooped down the river by hundreds to assure themselves by sight and smell that the myriads of money screwed, or about to be screwed, out of reluctant ratepayers were at length producing a sensible result. Vestry trod upon the heels of Vestry, and the unaccustomed mind quailed before the vision of some two thousand parochial authorities, dignitaries, and officers, shuffling, loquaciously amazed, along huge tunnel-like drains, crowding into vast reservoirs, bewildering themselves with "penstocks," and hanging entranced over that murky and odoriferous current, an earnest of the great results to come.

The drain now first put to its proper use is the northern high-level sewer. By a temporary continuation, it delivers its contents directly into the Thames by gravitation. When fully completed, with the remainder of the northern main sewers, it will communicate with a vast reservoir, which will be emptied daily into the river as the tide begins to ebb. The high-level sewer commences at Hampstead, and runs over the Highgate-road, across the fields, and down the Holloway-road, under the Great Northern Railway and New-river Cut to Stoke Newington, and then through Hackney and the Victoria Park to its aqueduct across the river Lea at Old Ford. At the beginning at Hampstead it forms a tunnel four feet in diameter; at its termination at Old Ford the diameter is upwards of twelve feet—the capacity having been gradually increased to this extent. At Bow the high, middle, and low level sewers unite, and their contents are delivered into three great outlet drains, by which they are conducted to the main reservoir and final outfall at Barking. From Hampstead to Old Ford the high-level sewer measures upwards of eight miles; the length of the outlet is about five miles and a half.

The open current of sewage from the high-level drain at Barking is certainly a curious spectacle. It has a singularly unpleasant resemblance, in appearance and odour, to the water in the vicinity of the boat stations near the bridges at low water. Amongst the floating contents of the sewage two articles were conspicuous—lucifer matches and *bread*. The quantity of bread, in fragments of greater or less size, which was swept along in the stream during a few minutes' observation was something astonishing. The waste—if the state of the sewage observed on Tuesday was its normal state—must be incredible.

The works at Barking and across the water, on the southern bank, are now assuming a form which even the uninitiated may comprehend. The outlet drains and several chambers are well-nigh completed. The principal tunnels on the southern shore were lit up, for the inspection of the visitors, with coloured lamps or more primitive "dips," and the effect was not a little curious. The beautiful finish of the brickwork is beyond all praise. Two years more, it is estimated, will be required to bring the works at present in progress to a conclusion. That they will effectively carry out the objects sought by the engineers we have little doubt. But if it be imagined that the Main-Drainage scheme will convert the river above-bridge into a clear and pellucid stream, London will probably be doomed to disappointment. The Thames will be rid of its most offensive contents (the main result to be obtained), but there is little hope that its water will be at any time less opaque than it is at present. The opacity is chiefly due to augmented tidal scour; an improved drainage, which brings the upland waters and an increased quantity of earthy matters into the river with greater expedition after rainfall; and the agitation of the river by the action of steamboats. Improved drainage of the metropolis will not affect these things. "Were there no population whatever on the Thames," say the Main-Drainage engineers, "the banks of the river, from its mouth to above the western limits of the metropolitan area, would, in the present condition of things, be covered with mud-deposits, in consequence of tidal action alone, and the water remain almost as turbid as it is now."

The Metropolitan Board of Works entertained their company in the completed portion of the great reservoir at Barking. The tables were loaded with excellent food; but it will be a wise precaution for future visitors of the board to carry with them their own knife, fork, and spoon. The implements provided by the board's caterer led to a strong suspicion that they were recent sewerage waifs, which had not even been cleaned.

ROYAL COLLEGE OF PHYSICIANS.

AT a meeting of the Fellows of the Royal College of Physicians, held on Monday, the 20th inst., it was announced that twenty-eight out of thirty-four candidates had passed the first Professional Examination, and that sixteen out of twenty candidates had passed the final examination for the new Licence. The sixteen gentlemen who had passed the final examination were admitted Licentiates, and the College seal was affixed to their diplomas.

The Registrar of the College was instructed to transmit to the Registrar of the General Medical Council a list of the names of the new Fellows and Licentiates.

The following Bye-law was enacted for the first time:—

"That Matthew Stovell, M.D., having been elected a Fellow of the College, and being resident in India, be admitted to the Fellowship *in absentid*, on signing the usual declaration, any Bye-law to the contrary notwithstanding."

The Council reported that a communication had been received from the University of Oxford, announcing the intention of the Senate to extend the field for election to the Sherard Professorship of Botany. This Professorship was founded in 1728, by William Sherard, D.C.L., English Consul at Smyrna, who directed that the nomination should for ever be in the gift of the College of Physicians of London.

A communication from the Foreign Office, enclosing a despatch from her Majesty's consul at Rome, was read. This despatch called attention to the remarkable influence of hygienic measures in preventing attacks of malarious fevers. In former years, the harvest in the Campagna had always been gathered in by the poor inhabitants of the Abruzzi, few of whom escaped an attack of fever. The hospitals of Rome were crowded with fever-stricken labourers, many of whom died. Last year, however, the labourers from the Abruzzi, being engaged in the construction of new railways, failed to make their appearance in the Campagna, and the Papal Government were compelled to have recourse to the troops to gather in the harvest. The Duke of Montebello also gave permission for a certain number of the French troops to be employed in the same work. Strange to say, scarcely any of the troops employed in what had always been regarded so dangerous a work suffered from fever. This immunity was attributed to the good diet of the troops, as compared with that of their impoverished predecessors. The former had a good allowance of meat and wine, whereas the latter subsisted for the most part on water-melons and water.

A letter from the Colonial Office was read, in which the Duke of Newcastle expressed his wish to have the opinion of the Leprosy Committee, as far as the replies to their inquiries hitherto received enabled them to give it, as to the contagiousness of leprosy. This information was asked for, as it is the Duke's intention, if leprosy can be shown to be not contagious, to instruct the governors of our colonies where the disease prevails to have the penal laws against lepers abrogated. The Duke's letter had been submitted to the Leprosy Committee, who reported to the College as follows:—

1. The number of replies hitherto received from the West Indies, Ceylon, China, and other parts of the world, amounted to 66.

2. In 45 the question as to the contagiousness of leprosy was answered with a decided negative, but no facts or evidence of any sort had been appended demonstrating this opinion.

3. In 9 the opinion was expressed that the disease was contagious, but the opinion was not based on any satisfactory evidence.

4. In the remaining 12, either no opinion was expressed, or statements were made of an altogether indefinite character.

5. The weight of the evidence, so far as it extended, was very much in favour of the disease not being contagious.

6. No evidence had been received to justify the compulsory segregation of lepers.

The Registrar of the College was instructed to forward this report to the Duke of Newcastle.

THE WAGES OF DEATH.

MADAME GENIEVE, known as the "Female Blondin," is the last victim to the depraved taste for sensation exhibitions. Her death, while performing at Birmingham, has surely amply satisfied the craving for excitement of the attending crowd. The mother of young children, who risked her neck for their support, has "met with an accident" which deprives her of life and them of subsistence. Her unborn babe has perished with her. In this respect the exhibition must be considered as a great success. Those fortunate enough to have been present enjoyed the rare change of seeing a double sacrifice in the one person. They have had full value for their money, and may congratulate themselves on their share in the transaction. Perhaps, in the assembled crowd, there was one female with a woman's heart, who felt pity for her wretched sister's fate—one mother whose bosom heaved with regret that she had countenanced that desperate struggle for life, so brief, yet so fatal. The others made holiday in honour of the occasion, and no doubt possessed themselves of fragments of the treacherous rope as *souvenirs* of the calamity. A few weeks since a somewhat similar "accident" occurred at Cremorne, with equally fatal though not such immediate result. Some months ago a poor girl experienced a scarcely less terrible fate at Highbury Barn, and she now lies crippled and helpless, an object of public charity.

Is there no method by which exhibitions of this character can be restricted within such limits as will afford a probable chance of safety in the event of a mishap? Is there no power on the part of the Legislature to prevent this reckless trifling with life? The question was put some time since to the Home Secretary, who promised that it should receive attention, and then remonstrated with the Crystal Palace Company in refer-

ence to the performance of the master of the trick. The matter has since been permitted to rest. Now, in the eleventh hour of this session, we trust that its settlement will be no longer delayed. On the ground of public morality, if not on the plea of public safety, we appeal to the authorities to prevent this trafficking on the chances of destruction. Is science benefited, or art advanced, by its toleration? Will public liberty or personal freedom be infringed by its prevention? We punish as a criminal the miserable creature who, in the frenzy of despair, seeks to terminate an existence of wretchedness or disgrace; and yet we suffer life and all its obligations to be purchased for gold, paid in the ratio of possible escape to probable destruction. Surely there must be an end to this. If there be no law equal to the occasion, let a Bill be immediately introduced for the purpose. We doubt not that it will receive the approval of every right-minded individual in the kingdom.

UNPOPULARITY OF THE ARMY MEDICAL DEPARTMENT.

AFTER the notices which have, from time to time, appeared in this journal relative to the condition of our medical brethren in the Army, our readers will not be surprised to learn that the number of those serving in the Department has become so reduced—chiefly through retirements and resignations—as to render it impracticable that leave of absence from duty can be granted even to those officers who arrive in this country after protracted foreign service. If this were only a temporary inconvenience incidental to causes which would speedily admit of removal, we should not revert to the matter; but, unfortunately, there is but little hope that such will be the case whilst the present officials retain office. Indeed, so unpopular has the Medical Department of the Army become among the students at our medical schools, that though on the present reduced scale of Establishment there are *seventy-eight vacancies*, we learn that up to this date only *eight candidates* have entered their names for the next so-called *competitive* examination, which is advertised to take place early in August.

To any sensible man such an announcement as the above will appear full of ill omen to the interest of the public service; for the alarming question at once suggests itself — If the medical service of the Army continues so unpopular that candidates will not offer themselves, what will become of our troops? Really, at last, the time has arrived when Dr. Gibson should ponder seriously over the disastrous condition of the Department. Unless he can devise some scheme to help the discontented juniors, and present to candidates a better prospect than to serve for twenty or more years as assistant-surgeons, we greatly fear that (though a repetition of unscrupulous means may be used) the Director-General will be obliged to confess that professional men cannot be found to enter a service in which they are treated with rudeness and contumely.

HOSPITAL ELECTIONS.

OWING to the pressure of private engagements Dr. Brown-Séquard has retired from the duties of his appointment as Physician to the National Hospital for the Paralysed and Epileptic; and on Wednesday last the vacant office was filled by the election of Dr. Radcliffe, whose valuable and original researches on the physiology and pathology of the nervous system have lately held a prominent place in the columns of THE LANCET, and won the approval not only of the English profession, but of the most distinguished members of the Continental schools. We believe that these lectures are in course of translation, and about to appear in the leading medical journal of Germany.

At the Lock Hospital, also, some changes have occurred. Mr. Henry Lee having retired, after long years of service, Mr. G. G. Gascoyen, Assistant-Surgeon of St. Mary's Hospital and Surgeon in charge of out-patients at the Lock Hospital, has been promoted to the charge of in-patients, in place of Mr. Lee; and Mr. Buxton Shillitoe, recently appointed to the Great Northern Hospital, and long known as an able practitioner, has been appointed Surgeon in charge of out-patients, *vice* Mr. Gascoyen, promoted. At St. George's Hospital Dr. Robert Lee has resigned the office of Physician-Accoucheur.

THE

REPORT OF THE ROYAL COMMISSION ON THE SANITARY STATE OF THE INDIAN ARMY.

No. II.

THE recommendations of the Commission include (1) the diminution of the number of stations in the plains, and the removal of as large a proportion of troops to the hills and table-lands as would be consistent with the security of the country; (2) the organization of an efficient sanitary service; and (3) suggestions for the removal of the particular hygienic evils disclosed by the inquiry.

"For some years past," say the Commission, "the conviction has been gaining ground in India, that, in order to diminish the high rate of sickness and mortality, it will be necessary to remove a considerable proportion of the troops from the low malarious plains and river-banks, and to station them on high table-lands or isolated mountains. ..... We are indebted to Sir Ranald Martin for having brought this subject prominently before us, and also for having directed the attention of the Indian Government to its importance."

The propositions submitted to the Commission and the Indian Government by Sir Ranald Martin are characterized by remarkable boldness and prescience. They touch the very core of the whole matter. Involving a fundamental change in the distribution of the forces in India, it is not surprising that the Commission, although conceding the soundness of the principles upon which the propositions are based, should have hesitated to recommend that the latter should be carried out in their entirety. The sanitary portion of Sir Ranald's argument is, we hold, incontrovertible; and the antagonistic military argument is so far open to doubt, that it may be justly questioned whether the recommendation of the Commission concerning the proportion of troops to be on service in the plains should not have been made dependent upon the results of the specific military inquiry which must of necessity precede the adoption of the recommendation.

Setting aside humane and financial considerations, Sir Ranald Martin doubts whether, as a matter of fact, it would be practicable, under the present system of recruiting, to maintain effectively a European army of eighty or even fifty thousand men in India, so long as the annual decrement from all causes amounted to 120 per 1000—the rate of diminution which has hitherto resulted from the occupation of the plains of Hindostan by British troops. He holds that "nothing short of a proved necessity can warrant the condemnation of the British soldier to a residence on the hot and pestilential low grounds of India. It is (he urges) by reducing our garrisons on the plains to their minimum, by placing them in field-works open to the winds, in stations of proved salubrity comparatively, and by relieving them at the end of every year, and removing them for mental and bodily refreshment and invigoration back to the higher grounds, that their health and contentment may, in his view of the case, be preserved. Hitherto under the ramparts of our old forts, and in our badly-selected and ill-arranged stations and open cantonments, our men have sunk away at the well-known rate already mentioned.....If the natural wants of the case, involving only a pure and cool air, with the means of exercise and amusement, be not anticipated, the moral and physical

necessities of the European garrison will settle the question by the arrest of recruiting for India, and by the premature return of the limited service men, two rapidly exhausting causes, for the prevention of which the remedy is now at hand, if we would apply it. By persisting to confine our British soldiers to the dreadful monotony and endless miseries of barrack life in the plains of India, we shall burn the candle at both ends, and leave the ultimate settlement of an important question, now very easy of being settled, to be concluded in a manner injurious to all authority." Hill stations, moreover, would permit recruits being drilled and trained in India without injury to the health; and by bringing the battalions into the plains in the cold season, there to be perfected in marching and in firing, military exercises might be rendered conducive to health and efficiency. Another advantage of hill stations would be the greater control which might be exercised over the introduction of poisonous native spirits and venereal infection among the soldiers. "Were there no considerations which recommend the selection of hill stations other than those here referred to (Sir Ranald Martin states), I venture to say that they would yet be paramount. If the mountain climates of India did not possess that which they are known to enjoy—namely, a pure, cool, and bracing air, still, I repeat it, the two considerations named ought to give them a preference. The strength of the British army of India must be counted, not by the muster-rolls, but by its soundness of health, and its consequent real efficiency, both on moral and sanitary grounds." Sir Ranald further avers, that if we would avoid the dangers of another army of treacherous and trained mercenaries, it must be by maintaining our European troops in the fullest vigour, and capacity for action; that the absence of the bulk of the forces from the plains would not exercise an ill-effect over the natives, begetting a restlessness tending to insurrection; and he hopes for the time when by a general disarming of the people European troops will no longer be required for purposes of overawing and coercing armed subjects.

Four means of vast sanitary importance which conjoin to the proper disposal of the British garrison of India are indicated by Sir Ranald Martin—viz., (1) the careful selection of such stations on the plains as must, for political and military reasons, be occupied by Europeans, implying proper structural arrangements of every kind; (2) the occupation of table-lands by the artillery and cavalry; (3) the permanent occupation by the infantry of stations on the hill ranges throughout our Eastern possessions for the preservation and maintenance of health; and (4) the selection of the best convalescent stations beyond the sea for the care of such invalids as may not regain their health in India. He further urges the establishment of "a well-supported sanitary department separate and distinct from that ordered for the cure of disease and wounds. Personal hygiene, which must be left to the care of the regimental surgeons and the medical staff of general hospitals, ought necessarily to be separated from the general military hygiene—the preserver of armies. Not to go further back, it was owing to the absence of a reliable and influential sanitary staff that our armies perished at Walcheren, at Rangoon, in China, and in the Crimea."

The Commission report that the evidence laid before them was, "with a trifling exception, decidedly in favour of mountain climates, especially during the earlier years of service; and the evidence of witnesses tends to the same result." But favourable as this evidence was, that it indicated but very imperfectly the benefits to be derived from hill climates is to be gathered from the facts that the hill stations already founded have been chiefly used as convalescent establishments; and that, as a rule, their sites have been selected without due regard to sanitary considerations, while the sanitary condition of the buildings and environs was most defective. The greater number of the stations have been placed on the outer face of the mountain ranges, and at an elevation where the heaviest rains occur; consequently they receive the first impact of the monsoon, and are all wet and subject to cold fogs. At Simla, "the 'conservancy' is described as having been as bad as could be, the ravines full of dead animals, together with the ordure of many thousand natives. There are no public conveniences. The water-supply was scanty, and liable to pollution. The effluvia from the ravines were 'as strong as on going into a sewer.'..... Surgeon-Major Grant says, that 'the authorities seemed to think that because the climate was cold, the men might be crowded together, and all sanitary arrangements neglected with impunity." At Mount Aboo the barracks are situated in a malarious gully. At Nynee Tál, 7600 feet above the level of the sea, the huts have been built in a narrow defile, where the earth is damp and a perfect marsh during rains, and where the huts are exposed to violent gusts of wind. There are neither drains nor latrines, and the "stench is at times overpowering," causing nuisance in the barracks. In fact, as Sir Ranald Martin remarks, "hill ranges have been so misused as to produce their worst influences, taking but little advantage of their best."

An excellent illustration of the capabilities of hill stations is furnished by the Lawrence Asylums, in the mountains, where children flourish as in healthy country districts in England; while the children of British soldiers stationed at Fort William, Calcutta, perish at the annual rate of 160 per 1000. There is a convent at Darjeeling, where during thirteen years not a death has occurred among the children; while the mortality among children in Bengal is 84 per 1000 per annum.

But although there was a great concurrence of opinion in the evidence laid before the Commission on the sanitary value of hill stations, the proposition that most of the effective force should be located there was objected to, and the Commission thinks that the objection was sound. It was argued by Col. Durand that any large proportion of troops cannot be quartered on the hills without detriment to the military occupation of the country; that to do so would be practically to evacuate the country; that it would be most dangerous not to occupy the great strategical points upon which the security of the country depends; and that there are many posts which must be held, healthy or unhealthy. "Several illustrations of these dangers (say the Commission) occurred during the mutiny, where important points were lost from deficiency of force, before regiments could be brought down from the hills. It is clear that all necessary points in the plains must be held by a sufficient force, and hence whatever proportion of troops is placed on the hills must be considered as 'a reserve.' Both Sir John Lawrence and Sir Charles Trevelyan concur in this, that not more than one-third of the force should be disposed of in this manner. Such a proportion would enable the remaining two-thirds of the force to take their turn on the hills. But here another question presents itself—viz., What are the points in the plains which must be held? This all-important element in the question has not yet been settled."

Until this essential element is settled, we must demur to the conclusion that only one-third of the force should be stationed on the hills. The enormous waste of life and destruction of efficiency are evils which unquestionably would be best met by carefully selected hill stations, and an annual relief of the garrisons in the plains, such as Sir Ranald Martin proposes. By adopting such an arrangement, and carrying out a thorough system of sanitary improvement in the stations retained on the plains, the morbific effects of climatic and malarious agencies would be reduced to a minimum; and it is but reasonable to suppose that the efficiency of the forces would be promoted to an extent fully equivalent to the seeming numerical efficiency contemplated by the Commission. It is highly probable that, from a diminished constant-sickness rate, the efficiency of a body of troops subjected to an annual relief would be more complete than that of a body one-third greater subjected to biennial reliefs. But, be this as

it may, it is certain that, while the sanitary question is a harsh unrelenting fact, involving even the practicability of maintaining a European force of the strength demanded for India, the strategical question is conflicting and doubtful.

The results of the Commission's inquiry into the important subject of hill stations are stated as follows:—

1. "To reduce to a minimum the strategic points on the alluvial plains, and to hold in force as few unhealthy stations as possible.

2. "To locate a third part of the force required to hold these points on the nearest convenient hill station or elevated plain, including in this third, by preference, men whose constitutions are becoming enfeebled, and recruits on their first arrival; and to give the other two-thirds their turn.

3. "Never to trust to simple elevation as a means of protecting health; but while occupying the best available elevated stations, to place these (for they want it just as much as the stations in the plains) in the very best sanitary condition."

Correspondence.

"Audi alteram partem."

THE FELLOWSHIP OF THE COLLEGE OF SURGEONS.

To the Editor of THE LANCET.

SIR,—At the recent dinner of the Fellows of the Royal College of Surgeons, the chairman took that opportunity of stating "a grievance of which provincial surgeons had to complain"—namely, the compulsory residence for three years in London before admission to the examination for the Fellowship of the College. Would that the reply made by Mr. Luke gave the smallest guarantee that it was the intention of the Council to remove so intolerant a regulation! It is difficult to understand what that gentleman meant, if he meant anything at all. The only interpretation I can attach to his speech is, that, as the London schools can do all that is required in the way of medical education, provincial schools may as well "shut up shop;" or, at any rate, if they have the temerity to continue open, as far as the College of Surgeons is concerned, they shall only have the lowest market open for their commodities.

Now, honourable as the position of F.R.C.S. is, the Council must take care, if they dispose of their honours at such a "fancy price," lest they lose some who in time to come would be amongst their most distinguished connexions. I mean especially graduates of the Universities of Oxford, Cambridge, and London. It is admitted by all that the qualifications required by these Universities are of the highest order, and, as each grants a degree in surgery, its members are quite independent of the Royal College of Surgeons. Nevertheless, many of them would gladly identify themselves with their brethren in Lincoln's-inn-fields (and I doubt not that both parties would reap benefit from such a connexion), but are unable to do so if they have not undergone the three years' compulsory residence in London. As the University of London does not require such residence, either the regulations of the University must be insufficient to ensure competency in its *alumni*, or the Royal College of Surgeons must have instituted an unnecessary precaution. The regulation of the College is especially severe on the members of the two older Universities (one of the *principles* of which is residence for at the very least four years), who, if for the purpose of forming a connexion or other reason they spend two years at a provincial school, would be required under the present system far to exceed the prescribed six years' study, and thereby further exhaust their already too long suffering pockets, or forego the privilege of attaching F.R.C.S. to their names.

Now that the question has been started by one of such high standing as Mr. Turner, I trust that the Council will not suffer it to drop till the necessary reform has been effected, and thus show "that they are very desirous of conciliating the good feeling and support of the provincial schools."

I am, Sir, yours &c.,

July, 1863. A GRADUATE.

ORIGIN OF SPECIES.

To the Editor of THE LANCET.

SIR,—I have now to reply to Mr. Lankester's letter, which appeared in your journal of the 6th of June. The question between us is this: I hold that new creations of plants and animals, without being propagated by seed, are constantly going on; and that the creations of the past have in all probability been effected in a similar manner. Mr. Lankester calls this "the exploded doctrine of spontaneous production," and proceeds to correct the errors into which he says I have fallen. I wish it to be understood that my object in the present controversy is, not to vanquish my opponent, but to discover truth and advance the interests of humanity.

It may be difficult to give direct proof of spontaneous creations of vegetable or animal life, but as there is no want of indirect evidence of such creations I shall state one or two cases. If we top-dress a paddock which never before produced a blade of clover with lime fresh from the kiln, we shall have clover growing in abundance. Here, then, we have the indirect evidence of plants being raised without seed. In confirmation of this fact I may state that a friend of mine, on sinking a well thirty feet deep, found that clover grew on the stuff that had been raised, which no doubt was largely impregnated with lime. If I am told that clover-seed must have been buried in the limestone, I answer that we may conceive this to be possible, but not probable. Again, if we turn up the soil in the interior of Australia, where no thistles or nettles were previously known to exist, we shall have these plants growing on the soil so turned up. If we cut down a primeval forest in any country, an entirely new *flora* and *fauna* will be created. Allow cheese or food of any kind to go to decay, and you will find mites and maggots produced. Now, can we imagine that the seeds and eggs of these plants and animals have been deposited thousands of years previous to their appearance? I think not. Has Mr. Lankester asked himself how there could be any plants or animals in existence if their originals had not been created without seed? It is quite certain that there could be none. The sole question that remains is how these original creations have been effected; and with the object of elucidating the mystery I will now allude to the case of man.

In my last letter I explained that when vegetable matter comes in contact with the atmosphere charged with gases and electric fluids, animal organisms are readily produced. Now, to conceive the original creation of man or any of the superior animals, we have only to conceive of the necessary conditions of the earth and its atmosphere coexisting to bring about such creations. It is probable that not one or two individuals, but thousands of the human race were originally planted on the earth, and that out of a vast multitude a few would survive, who would propagate their species. When man was first created—probably at the period of the London Clay—the climate was warm, and brought forth food of every kind; neither clothing nor cooking, therefore, would then be required. I do not say that man would be produced full grown at first, or be so perfect a creation as those races subsequently produced by ordinary generation; but I see no reason for supposing that man has gone through various stages of development occupying vast periods of time, as held by some writers.

It is very probable that man would be a very inferior being before the change of climate, which is supposed to have taken place at the Drift period, to what he is now. That change of climate forced man to clothe his body and cook his food, which called forth his intellect and higher powers; and so necessary was that change, that if the original state of the globe were to be restored, man would return to his primeval state of existence.

Having now explained my own theory of creation, it will be useful to compare it with the theories of others.

The author of the "Vestiges of Creation" traces every superior race to an inferior race until he arrives at the simplest forms of animal and vegetable life. By his theory there has been only one original creation. The fallacy of this theory is obvious, for there is a total want of connecting links between one race and another, which would not have been the case if his theory had been true.

Mr. Darwin's theory—if it can be called such—is only a modification of the "Vestiges." He labours to show that what he calls "natural selection" has produced the different races; but that is only another term for "crossing"—a doctrine which does not account for the existing races, for we know that "crosses" do not breed. Now, if we take away the

idea of natural selection from Mr. Darwin's system, all that is left is essentially the same as the "Vestiges."

It will be observed that my system differs entirely from both; for while their systems run into one original creation, mine is the opposite, involving as it does innumerable and original creations distinct from each other. My system meets all the facts of the case, and requires no links to connect one race with another. If we may judge the past by the present, making all due allowances for the different circumstances of the various geological periods when the creations took place, all the existing races of plants, animals, and men have been created spontaneously, in the same manner as we see inferior creations going on now.

In answering this letter, it will be necessary to meet the facts on which I have based my theory. It is time this vexed question of the origin of species was settled, for until something definite is arrived at it is impossible to see how any general advance in science can be made. We may rely upon it that the best interests of man lie in the region of truth, and if that be granted, we shall injure those interests by shutting our eyes to the evidence of our senses.

I am, Sir, yours very respectfully,

Sloane-street, June, 1863. A. ALISON.

THE MEDICAL CHARITIES AND THEIR FINANCIAL DIFFICULTIES.

"They cannot dig, and to beg they are [not] ashamed."

To the Editor of THE LANCET.

SIR,—The papers are filled with advertisements proclaiming the unwelcome intelligence that nine-tenths of the medical charitable institutions of the metropolis are in difficulties, and that unless larger funds are contributed towards their support and maintenance, many wards in each of the institutions so situated will have to be closed, and a proportionate number of sick and wounded applicants denied admission.

This state of things is not to be wondered at, when the enormous number of persons annually relieved at the metropolitan hospitals and dispensaries is for one moment considered. It is stated that one hundred thousand out-door patients were relieved at St. Bartholomew's Hospital in the course of the last year, 1862; forty thousand similarly relieved during the same period at King's College Hospital; and proportionate numbers at all the other medical charitable institutions: so that the total number of recipients of medical aid far exceeds a million in one year. For this gigantic scheme of benevolence the charitable alms-giving of the public furnishes the funds, and the medical profession gives its skill, time, and labour. It must be borne in mind that this immense amount of charitable assistance is afforded to a class of persons totally distinct from, and in addition to, the equally large class relieved in a similar manner under the Poor-law system.

With this statement before us, it can hardly be wondered at that hospitals are in difficulties, or that the alms-giving portion of the public require very frequent and urgent appeals to induce them to find the money; indeed, it raises a very fit and appropriate question for consideration, whether the begging system on the one part, and the equally enormous alms-giving on the other part, as now adopted in reference to almost every social want, have not attained such proportions as to threaten a complete and overwhelming collapse in every charitable undertaking, from sheer inability to continue to give gratuitous assistance on so gigantic a scale as it has now attained in this metropolis, without some slight assistance—a nominal rate in aid, as it were, being afforded by those for whose exclusive benefit so vast an amount of charity and benevolence is collected and distributed.

As far as the medical charities are concerned, a registration fee of one shilling from each applicant for out-door relief could, in almost every instance, be fairly demanded; and it would be so slight a burden that it would be readily paid, especially as the party from whom the payment is exacted would be in immediate receipt of the assistance applied for. And the small charge of one shilling could never be looked upon as a payment for advice or medicine, but simply as a registration fee, such as a person applying for a situation would have to pay at any office for putting his or her name down.

A large sum of money, useful for a great variety of purposes, could in this way be obtained in aid of the funds derived from other sources by which the hospital is supported, without being at all felt by the parties contributing it. St. Bartholomew's might thus obtain £5000!—a handsome sum to divide, if necessary, among needy patients on their discharge, to help them for a week or two during convalescence, and thus largely extend the benefits of these invaluable institutions; and other hospitals might gain proportionally, and find good uses for the money. This subject might be much enlarged upon, but I purposely avoid touching upon debateable ground, and simply suggest that "hospitals in difficulties" should try and extract a trifling "rate in aid" from those who so largely benefit by their assistance, and appeal to the old truism, "that Providence helps those who, in a Christian spirit, try to help themselves."

I am, Sir, your obedient servant,

JAMES BIRD.

Seymour-street West, Connaught-square, July, 1863.

THE MEDICAL PRACTITIONERS OF BEDFORD AND HOMŒOPATHY.

To the Editor of THE LANCET.

SIR,—Having noticed a communication in the last number of THE LANCET from Dr. Wharton, we respectfully ask you to insert the following remarks in our justification:—

You will have perceived by the report of the Bedford meeting held on the 6th instant, that although Mr. Coombs renounced the practice of homœopathy, he would not give up the use of the M.D. degree from an American Homœopathic University. Under these circumstances, such M.D. degree having been refused registration under the new Medical Act, the members present would not consent to meet Mr. Coombs in consultation, nor would they consent to meet anyone who would consult with him. We regard the relinquishing of a homœopathic degree as the logical sequence or indispensable accompaniment of a renunciation of the practice of homœopathy. Indeed, we do not see how the title to the practice of homœopathy could, consistently, be retained after the repudiation of the practice itself.

We shall be glad to know what are your own views and those of our professional brethren on this point.

Should we be justified in meeting Mr. Coombs under these circumstances?

Again, in the face of a resolution which has been passed over and over again—that it is not right for medical men to meet in consultation those who meet homœopaths—should we be justified in meeting Dr. Wharton if he still meets Mr. Coombs?

This is a case which, as far as we are aware, has never come under the notice of the profession. A man has gone half way to cleanse himself from the plague spot of homœopathy; and we contend that we should not be justified—looking solely to the integrity of our profession—in recognising the remaining half.

The allusion of Dr. Wharton to "brass plates" we do not understand; but we must be allowed to express our deep regret that he should treat his professional brethren quite so superciliously. We assure both Dr. Wharton and Mr. Coombs that we have but one single desire, that of assisting to clear the profession of the disgrace arising from tampering in any way with the practice of homœopathy.

We are, Sir, yours &c.,

EIGHT GENERAL PRACTITIONERS OF BEDFORD.

Bedford, July, 1863.

POOR-LAW MEDICAL RELIEF.

To the Editor of THE LANCET.

SIR,—You will oblige me by giving insertion to the following observations upon Poor-law Medical Relief. I have had upwards of twenty years' experience as surgeon to a large district of a Poor-law union, consequently am practically conversant with the subject; and after mature consideration I am thoroughly convinced that no amelioration of the condition of Poor-law medical officers will ever be effected, either by the provincial Poor-law boards of guardians, the Central Board at Whitehall, or by the members of the House of Commons, until a greater unanimity of feeling and action exists among medical practitioners themselves. Once establish this, and then act with a spirit becoming gentlemen, they cannot fail to secure the long-sought object of contention, and place themselves in a more honourable position as the only true mediators between the ratepayers and the recipients of the poor-rates. Under the

present system of Poor-law medical relief the whole machinery clashes, and the result inevitably is an enormous increase of expenditure of poor-rates throughout England.

Mr. Griffin has for many years acted in the most indefatigable manner, and deserves every credit and better support from his medical brethren; but after all his incessant toil and anxiety, for which no money can ever compensate him, what does it amount to? why, to the very thing I predicted at the commencement of his labours—nothing at all,—and which his letter in your last week's journal fully verifies. If, therefore, medical practitioners persist, after this, in acting in opposition to the benefit of the poor and their own interests, they must expect the consequences to recoil upon themselves in the shape of increased labour, and great distress and suffering among the poor, the result of which will be an extravagant expenditure of the ratepayers' money.

Now the remedy for this crying evil is to convene county meetings throughout England of all the medical men, and to request the medical officers of each Poor-law union, or their deputies, to attend. At such meetings a code of resolutions and regulations should be drawn up, signed, and submitted to an aggregate meeting of medical practitioners in London, the primary object of which should be (all others having failed) to give one week's notice to the several boards of guardians, and then tender their resignation simultaneously upon a given day; this being accomplished, no qualified medical man in England, either in the employ of guardians or otherwise, to resume his duties, under any pretence whatever, until a satisfactory arrangement had been made, and an equitable emolument given for his services, a detailed account of which I am prepared to place before the Poor-law Board at Whitehall whenever an eligible opportunity presents itself.

I am aware that to this comprehensive view of the matter some practitioners may possibly make frivolous objections; but if the scheme is well organized, there need be no difficulty whatever in carrying it into effect. Thus would be obtained the long-sought object, without further misgivings, or expenditure in money in the shape of expensive government committees, or contribution from the already overtaxed medical man. I will venture to say there is not a Poor-law medical officer in England adequately paid for the labour he is called upon to perform; then why, let me ask, should he sacrifice his time, his money, aye, even his very life, for the benefit of his fellow-men, without an equitable return? Would any member of Divinity or Law for a moment submit to such a degradation, or subject himself to be insolently interrogated by men who have procured a seat at a dictatorial board of guardians, whose sole object is pounds, shillings, and pence?

In conclusion, I do then most unhesitatingly call upon every qualified medical practitioner in England to aid in carrying out the above project, which, if done, will not only tend to benefit himself, but the ratepayers, and those generally who seek Poor-law medical relief.

I am, Sir, your obedient servant,

Kensington, July, 1863. M.R.C.S.E. &c.

THE INFLUENCE OF SMOKING ON THE MUCOUS MEMBRANE.

To the Editor of THE LANCET.

SIR,—In the summary of the recent inquiry by Dr. Richardson on the Influence of Smoking, noticed in your article on the Tobacco Question in last week's number, there is one point to which I take exception. In the enumeration of the parts affected by smoking, Dr. Richardson mentions, amongst others, the mucous membrane of the mouth and the bronchial surface of the lungs. Why he should select the commencement and termination of the respiratory mucous tract, as being more influenced than the intervening portion, I cannot understand. From very considerable experience on this subject, I unhesitatingly state that the fauces, pharynx, larynx, and trachea are much more frequently affected from excessive smoking than are the bronchi and the mouth, and I feel satisfied that in this observation I shall be borne out by most if not all of those experienced in this matter. For many years past well-marked and sometimes severe cases of true follicular disease of the throat and larynx have presented themselves to my notice, which were clearly the result of excessive smoking; and I considered the disease of so much importance that a chapter was devoted to its consideration in my work on Diseases of the Throat (p. 142).

I remain, Sir, your obedient servant,

Portman-street, Portman-square, July, 1863. GEO. D. GIBB, M.D.

THE MEDICAL PROFESSION AND LIFE ASSURANCE OFFICES.

To the Editor of THE LANCET.

SIR,—As you have published two letters, and your own important comments, on the shortcomings of the Norwich Union Life Assurance Society, perhaps you will permit me, as a matter of justice to that Society, to state that, on Dec. 23rd, 1862, I received their usual form of certificate by post, to which was attached the following foot-note:—"A fee (21s.) will be paid by the Society." On Dec. 24th the certificate was filled up and returned, and on the same day the fee (21s.) was duly paid. I am, Sir, yours obediently,

Sutherland-street, S.W., July, 1863. T. CHAMBERS.

THE ASSOCIATION OF MEDICAL OFFICERS OF ASYLUMS FOR THE INSANE.

THE fourteenth annual meeting of this Association was held, by the permission of the President and Fellows, at the Royal College of Physicians, on the 9th instant. Dr. Kirkman, the retiring President, resigned the chair to Dr. Skae, of Edinburgh, President elect, who delivered an able address on subjects connected with psychological research. There was a numerous attendance of members; amongst these were Dr. Conolly, Dr. Monro, Dr. Thurnam, Dr. Wood, Dr. Sherlock, Dr. Duncan, Dr. Fox, Dr. Wollaston, Dr. Willett, Dr. Crichton Browne, Dr. Herz, of Vienna, &c. The resignation of Mr. Ley, for many years the Treasurer of the Association (President, 1848), was received with much regret. The following officers of the Association were elected:—President Elect: Dr. Henry Monro.—Treasurer: Dr. Paul.—Editors of the Journal: Dr. Lockhart Robertson and Dr. Maudsley.—Secretaries for Scotland and Ireland: Dr. Rorie and Dr. Stewart.—General Secretary: Dr. Tuke. Twenty-two new members were proposed, and the following psychologists unanimously elected honorary members:—William Lawrence, F.R.S., Surgeon to Bethlehem Hospital; Dr. Delasiauve; Editor of the *Journal de Médecine Mentale*, Physician to the Bicêtre, President of the Société Medico-Psychologique of Paris; Dr. Girard de Cailleux, Inspector-General of Asylums in the Prefecture of the Department of the Seine; Dr. Moreau de Tours, Chief Physician of the Salpêtrière; Dr. Damerow, Physician of the Halle Asylum, Prussia, Chief Editor of the *Allgemeine Zeitschrift für Psychiatrie*.

A carefully-written paper was then read by Dr. Eastwood, on Private Asylums. Papers by Dr. Robertson and Dr. Maudsley were on the list, but the time of the meeting was occupied in a long and animated discussion upon the question involved in the proposed removal of Bethlehem Hospital. Upon the motion of Dr. Lockhart Robertson, seconded by Dr. Conolly, the following resolution was carried unanimously:—

"That the members of this Association have regarded with especial interest the question of the removal of Bethlehem Hospital to a site more adapted to the present state of psychological and sanitary science, and affording enlarged means of relief to the insane of the middle and educated classes in impoverished circumstances, and that they desire to express their concurrence in the representations already made to the governors of that important institution by the Commissioners in Lunacy."

The annual dinner of the Association was held, on the same day, at the Freemasons' Tavern, Dr. Skae, the President, in the chair. Among the guests were Dr. Bucknill and Dr. Wood, honorary members of the Association, Dr. Webster, Dr. Russell Reynolds, and Mr. Skae.

MEDICAL TRIALS.

MIDLAND CIRCUIT, LEICESTER, JULY 17TH.

(*Before* Mr. Justice WILLIAMS, *and a Special Jury.*)

BROWN *v.* EDWARDS.

THIS was an action for slander, to which the defendant pleaded that he was "Not Guilty."

Mr. Serjeant Hayes and Mr. Flowers appeared for the plaintiff; Mr. Macaulay, Q.C., and Mr. Mundell for the defendant.

The parties to this action are both members of the medical profession, and reside at Uppingham. The plaintiff, who is the son of a well-known solicitor practising there, had lately passed his examination at the College of Surgeons, but at the time when the alleged slander was uttered had not been registered under the late Medical Act, and was not an apothecary. There is in Uppingham a friendly society, calling itself the Artisans Benefit Society, of which the defendant had for some years been the medical officer. About the end of last year, some of the members, having become dissatisfied with the defendant, waited upon the plaintiff, and asked if he would consent to become their medical officer; to which he replied he should have no objection to act as such, if elected. The meeting for the annual election of officers took place on the 5th of January in this year, when the defendant was present. One of the members proposed the plaintiff as their medical officer, upon which the defendant got up and said the plaintiff could not be proposed because he had not sent in a written statement of his qualifications, as required by the rules. The chairman, who appears to have favoured the plaintiff, replied, "Why you yourself, Mr. Edwards, have not sent in any written statement. Moreover, you are not a member of the society, and cannot interfere in the discussion." The defendant became excited, and said the plaintiff had no wish to become their officer; to which several of the members replied that they had seen him, and that he had no objection to act, if elected. The defendant thereupon said, "Mr. Brown is not legally a doctor. I can stop him at any time. He is here by my sufferance, and if he interferes with my practice I can send him out of the town, as I did Mr. Walker." This was the slander complained of, the result being that the defendant was re-elected. The plaintiff's father had written to the defendant to complain of this statement; but the defendant had declined either to retract or to apologize for it unless the plaintiff would state that he was a member of the Apothecaries' Company, and a duly qualified general practitioner. To this the plaintiff's father replied that his son was not, and perhaps did not intend to become, a certified vendor of physic; and the defendant persisting in his refusal to retract or apologize, this action was commenced.

At the close of the plaintiff's evidence,

Mr. MACAULAY submitted that he had failed to establish his case. The declaration by its inuendoes charged the defendant with saying of the plaintiff that he was not a duly qualified surgeon and accoucheur, while what he had said was in effect that, being only a surgeon, he was not qualified to become the medical officer of a society where he would have to attend both surgical and medical cases, which by law he could not do.

Mr. Serjeant HAYES contended that the useless and unnecessary inuendoes could be rejected and the declaration amended; but this

The learned JUDGE refused, on the ground that, if the declaration were amended in that respect, and the wider interpretation put upon it, the defendant might be able to justify and prove the truth of the alleged slander. His Lordship thought that some light might be thrown upon the defendant's meaning by ascertaining the reasons for which the defendant had compelled Mr. Walker to leave the town.

Mr. MACAULAY thereupon called a witness, who proved that Mr. Walker had been compelled to give up practising at Uppingham because he was only a surgeon, and not a member of the Apothecaries' Company.

The jury found a verdict for the defendant.

There was a second action between the same parties, complaining of a repetition of the alleged slander after the plaintiff had registered under the Medical Act, but it was not proceeded with.

*** The above case well illustrates the necessity of some recognized professional tribunal for the settlement of questions involving private difference between local practitioners. It is much to be regretted that every petty altercation should find its way into Court, and that small personal disputes should assume the serious and expensive aspect of civil actions. Being of opinion that disagreements of this character reflect little credit on either party, we are far from congratulating the defendant on the technical point which procured him the verdict, and have certainly little sympathy with the plaintiff for the outlay he himself has occasioned.—ED. L.

ADULTERATED YEAST.—We are glad to learn that the importation of adulterated yeast is under the consideration of the Secretary of State for the Home Department.

Parliamentary Intelligence.

HOUSE OF COMMONS.

MONDAY, JULY 20TH.

ARMY MEDICAL OFFICERS.

Mr. BLAKE asked the Under Secretary of State for War on what grounds medical officers of the army were by a late warrant precluded from acting as presidents of boards of inquiry, boards of survey, and committees.

The Marquis of HARTINGTON said that a committee had been appointed to consider the subject, and the result of their inquiries was to place the medical officers in the same position as other non-combatant officers of the army, but certainly no stigma was intended to be thrown upon them.

*** The reply of the Under Secretary of State for War is anything but an answer to the pertinent question of Mr. Blake. The question referred to the "grounds" or reasons upon which medical officers were excluded from holding the office of president, &c. The Marquis of Hartington has failed to state these grounds. It is all very well to declare that "no stigma was intended." We look at the act, and not at the intention. The "intention" may have been good. Everyone is familiar with the aphorism respecting "good intentions." We contend that the act itself is most unjust, and does cast a stigma upon the army medical service. By education, by experience, and by every quality which should be possessed by a president of such tribunals, the army surgeon is the one pre-eminently fitted to occupy that post. The entire course of proceedings of the authorities with regard to what are called the "combatant" officers of the army in contradistinction to the medical staff is anything but honourable to the Commander-in-Chief. It is true that military surgeons are "non-combatant" officers; but who are more exposed than they are to the perils of war? Who have ever shown more gallantry in the field—more devotion to the service in the hospitals? The Commander-in-Chief owed his life at Inkermann to the courage and presence of mind of Assist.-Surgeon Wilson. Gratitude alone, leaving out other considerations, might, one would think, have induced his Royal Highness to act with more justice to a body of men who have never been found wanting in the hour of danger. —ED. L.

MONDAY, JULY 20TH.

DISEASED SHEEP AND CATTLE.

Mr. HUME, in the absence of Mr. R. Long, asked the Secretary of State for the Home Department whether his attention had been called to certain statements respecting the importation of diseased sheep and cattle, made by Professor Gamgee in his inaugural address to the members of the New Veterinary College, Edinburgh, in November, 1862—viz., that "pleuro-pneumonia and epizootic aphtha never appeared in Ireland till foreign cattle were imported there;" that "the maladies peculiar to British soil, though often very fatal, never arose above 1 or 1¼ per cent. loss, and usually much less; 5, 6, and 10 per cent. are a common yearly average now;" and "that last year we did not lose in England alone less than three times the amount of cattle we imported; and, if we calculate the loss over the three kingdoms, it will be found that for every animal we purchased from foreign dealers we did not lose less than six or seven of our own." Whether the above statements are well founded, and, if so, what steps the Government propose to take to prevent such evils for the future; and whether the reports of Professor Gamgee, made to the Government on his return from the continent last autumn, would be laid upon the table of the House this session.

Sir G. GREY said he had not seen the inangural address alluded to, and therefore could not say whether the statements alleged to have been made in it were well founded. He understood that the report of Mr. Gamgee would be presented in a few days.

PRODUCTION OF CINCHONA BARK.—In 1861 the quantity of Cinchona bark exported from Bolivia and Ecuador, the principal Cinchona producing countries of South America, was respectively 496,500 and 383,700 pounds, the value being £70,918.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At a general meeting of the Fellows held on Monday, the 20th inst., the following Members of the College were admitted into the Fellowship:—

Budd, Richard, M.D. Edin., Barnstaple.
Chance, Frank, M.B. Cantab., 51, Wimpole-street.
Davis, John Hall, M.D. Lond., 11, Harley-street.
Edwards, George Nelson, M.D. Cantab., 1, Finsbury-square.
Harris, Francis, M.D. Cantab., 24, Cavendish-square.
Hood, William Charles, M.D. St. Andrews, Croydon.
Meyer, John, M.D. Heidelberg, Broadmoor, Wokingham.
Sanderson, John Burdon, M.D. Edin., 9, Gloucester-place, Hyde-park.
Stone, William Henry, M.B. Oxon., 13, Vigo-street, Regent-street.

At the same meeting, the following gentlemen, having undergone the necessary examination, and satisfied the College of their proficiency in the Science and Practice of Medicine, Surgery, and Midwifery, were duly admitted to practise Physic as Licentiates of the College:—

Brown, John, Oldbury, Birmingham.
Forman, Elijah Baxter, Derby.
Griffith, Gorrequér, 17, Stanley-terrace, Notting-hill.
Hauser, Philip, M.D. Berne, Gibraltar.
Kempthorne, Henry Law, King's College Hospital.
Long, Frederick, East Dereham, Norfolk.
Medwin, Aaron George, Blackheath-road.
Milsome, John Ruddle, M.D. St. Andrews, St. Bartholomew's Hospital.
Taylor, Shephard Thomas, Dilham, Norfolk.
Terry, Septimus, 21, Cambridge-street, Pimlico.
Thursfield, William, M.D. Aberdeen, Bridgenorth.
Thurston, Edward Whitfeld, Ashford, Kent.
Trevan, Matthew, Port Isaac, Cornwall.
Wahltuch, Adolphe, M.D. Kieff, Cheetham, Manchester.
Walthardt, Gustav Rudolph, M.D. Berne, Queensland.

At this meeting the following gentleman were reported by the Examiners to have passed the first part of the professional examination for the Licence of the College:—

Brewer, Alexander Hampton, St. Bartholomew's Hospital.
Brewer, Henry Melvill, St. Bartholomew's Hospital.
Brockman, Edward Forster, St. George's Hospital.
Broughton, Henry Todd, Guy's Hospital.
Cavafy, John, St. George's Hospital.
Clements, George, Middlesex Hospital.
Compton, Thomas Annetriding, St. Bartholomew's Hospital.
Duke, Olliver Thomas, Guy's Hospital.
Eastes, George, Guy's Hospital.
Eck, Vincent Frederick, St. Bartholomew's Hospital.
Elkington, George, jun., Sydenham College, Birmingham.
Evans, John Tasker, St. Bartholomew's Hospital.
Fenn, Edward Liveing, King's College.
Glynn, Thomas Robinson, St. Bartholomew's Hospital.
Harvey, Walter Anstice, St. Bartholomew's Hospital.
Jackson, George, University College.
Lush, William George Vaudry, St. Bartholomew's Hospital.
Martin, Paulin, St. Bartholomew's Hospital.
Mayou, Marmaduke John, Guy's Hospital.
Paddon, George, Guy's Hospital.
Savage, George Henry, Guy's Hospital.
Smith, Charles, Guy's Hospital.
Tayler, Francis Thomas, Guy's Hospital.
Tayler, George Christopher, St. Bartholomew's Hospital.
Taylor, Arthur, Guy's Hospital.
Turner, Ebenezer Fulham, Guy's Hospital.
Wood, Miles Astman, King's College.
Wright, Charles James, Guy's Hospital.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. — The following gentlemen passed their Primary Examinations in Anatomy and Physiology at meetings of the Court of Examiners on the 21st, 22nd, and 23rd inst., and when eligible will be admitted to the pass-examination:—

Armitage, F. W., Guy's Hospital.
Baker, Robert, Edinburgh.
Battye, William, St. Bartholomew's Hospital.
Bryant, J. H., St. Mary's Hospital.
Boidero, Frederick, King's College.
Bradley, John, Liverpool.
Brewer, C. C., St. Bartholomew's Hospital.
Carter, William, Edinburgh.
Charlton, Alfred, Guy's Hospital.
Covey, George, St. Bartholomew's Hospital.
Coxeter, J. J., University College.
Davies, T. H. W., St. Bartholomew's Hospital.
Davidson, Charles, Edinburgh.
Dibb, E. N., Leeds.
Duke, J. C., King's College.
Drinkard, W. B., Paris.
Evans, Owen, Aberdeen.
Evans, Thomas, Edinburgh.
Fentem, P. S., Edinburgh.
Fielding, Thomas, Glasgow.
Flint, W. H., Manchester.
Foster, J. F., St. George's Hospital.
Fulton, John, Toronto.
Grace, Alfred, Bristol.
Grealy, Francis, Galway.
Green, T. W., Glasgow.
Hanna, James, Belfast.
Hardin, Walter, St. Thomas's Hospital.
Hawkes, C. St. A., Westminster Hospital.
Haxworth, Walter, Leeds.
Hill, P. E., St. Mary's Hospital.
Hughes, Richard, King's College.
Jameson, W. H., Edinburgh.
Jones, R. A., St. Bartholomew's Hospital.
La Mert, J. L., University College.
Leake, J. R., Guy's Hospital.
Ledingham, James, Aberdeen.
Legg, J. W., University College.
Leith, R. J. F., Paris.
Locking, Benjamin, Hull.
Long, C. F., Guy's Hospital.
M'Cully, James, Belfast.
M'Mahon, J. T., Charing-cross Hospital.
Mason, P. B., Glasgow.
Meade, Warren, Dublin.
Molyneux, J. L., Liverpool.
Murray, John, Aberdeen.
Norton, Edward, Middlesex Hospital.
O'Flynn, Andrew, Dublin.
Oliver, J. R., Edinburgh.
Orr, Gawin, Belfast.
Peacock, J. B., Leeds.
Price, J. L., St. Bartholomew's Hospital.
Rayner, A. C., Charing-cross Hospital.
Read, Charles, University College.
Richmond, T. J. K., St. Thomas's Hospital.
Roberts, T. E., St. Bartholomew's Hospital.
Rodgers, John, Dublin.
Rudd, W. A., Hull.
Scott, Thomas, Dublin.
Simpson, J. H., St. Bartholomew's Hospital.
Smith, J. W., Guy's Hospital.
Sparling, W. A., London Hospital.
Thomas, J. B., St. Bartholomew's Hospital.
Wallbridge, J. S., University College.
Wallis, A. J., St. Bartholomew's Hospital.
Watson, G. H., St. Thomas's Hospital.
Weir, C. J., Dublin.
White, George, London Hospital.
Williams, John, University College.
Wilkinson, G. F. E., Guy's Hospital.
Yates, William, Westminster Hospital.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 16th inst.:—

Boothower, Henry Crewe, Manchester.
Etheridge, Charles, Stoke Ferry, Norfolk.
Jackson, Thomas, Whitehaven.
Spurway, Charles, Tiverton, Devon.
Turner, Arthur Newman, Bermondsey-square.
Wearne, Vivian, Helston, Cornwall.

As an Assistant:—

Burroughs, Thomas John, Union-street, Southwark.

The following gentlemen also on the same day passed their first examination:—

Allen, Bryan Holme, University College.
Brewer, Alexander Hampton, St. Bartholomew's Hospital.
Brewer, Henry Melvill, St. Bartholomew's Hospital.
Clements, George, Middlesex Hospital.
Coxeter, James John, University College.
Dalley, Charles Thomas, St. Bartholomew's Hospital.
Freeman, Henry William, Middlesex Hospital.
Mason, Philip Brookes, University College.
Morris, Josh., Anderson's University, Glasgow.
Shorland, Edward Peter, Guy's Hospital.

N.B.—The Court of Examiners will meet on *Tuesday*, the 28th of July, instead of Thursday, the 30th; on which day there will be no examination at the Hall.—By order of the Court of Examiners, ALFRED M. RANDALL, Secretary.

THE RADCLIFFE INFIRMARY.—The extensive works at this infirmary are proceeding rapidly. In addition to the large proceeds of a bazaar, the University of Oxford and the Radcliffe Trustees have assisted the infirmary by munificent grants.

THE GERMAN HOSPITAL, DALSTON, is about to be rebuilt, and is to contain 70 beds, the contractor agreeing to provide for its enlargement to contain 100 beds if a sufficient amount be subscribed before the building is roofed in.

HOSPITALS IN TUSCANY.—A Florentine patrician, Count Angioli Galli, has recently died, and left all his property, amounting to about four millions of francs, to the Hospitals of Tuscany.

FOUNDER'S DAY AT EPSOM COLLEGE.—This event was celebrated, on Wednesday, at Epsom College, by the half-yearly distribution of prizes. A large number of the relatives and friends of the pupils assembled at the College about one o'clock, soon after which service was held in the chapel, prayers being read by the head-master, the Rev. Dr. Thornton, and at half-past two o'clock the visitors and boys adjourned to the schoolroom to witness the distribution of the prizes.

The Right Hon. Lord Chelmsford, to whom this interesting

duty was entrusted, occupied the chair, being supported on his right by Mr. Propert, the principal founder of the College, and on the left by the Rev. Dr. Thornton.

Previous to the distribution, the customary speeches of pupils who had distinguished themselves took place.

Lord Chelmsford, in delivering the prizes, gave an eloquent address, and then Sir George Pollock moved, and Mr. Propert seconded, a vote of thanks to his lordship. G. Cubitt, Esq., M.P., moved, and Dr. Sieveking seconded, a vote of thanks to the Rev. Dr. Thornton; after which the company partook of a cold collation which had been prepared for the occasion.

GREAT COLD IN JULY.—For many years the cold in July has not been so great as in the present year. At Whitchurch, near Reading, on Friday night, the 17th inst., the thermometer fell to 36 degrees, and on Saturday it registered 30 degrees, or two degrees below freezing. At Camp Hill, near Birmingham, on Sunday, the 19th, the minimum register stood at 36·8 degrees.

THE PUNJAUB MEDICAL COLLEGE.—The objects for which this college was established do not appear to have been attained, after a trial of three years. The Agra College, with 140 scholars, and an annual cost of 9200 rupees, is so much more desirable to be maintained than that of Lahore with 60 pupils, at an expenditure of 30,360 rupees, that the latter is to be relinquished. A hospital, however, has been sanctioned by the Government.

THE WASHINGTON ARMY AND MEDICAL MUSEUM contains about 1000 surgical, and 150 medical, specimens. A portion of the bone, both sides of the fracture, when amputations are performed, are ordered to be sent to the Surgeon-General for inspection, together with the surgeon's name. The specimens are illustrative of gunshot, shell and sabre wounds, injuries and affections. A spacious building in New York has been fitted up for a Medical Museum.

POST OF DENTAL SURGEON TO THE WESTMINSTER HOSPITAL.—We have been requested to publish the following gratifying testimonial:—

"Westminster Hospital, July 14th, 1863.

"Dear Mr. Clendon,—We, the undersigned Medical Officers of the Westminster Hospital, desire to express to you our sincere regret at your retirement from the office of Surgeon-Dentist; we equally regret that the laws of the hospital do not permit the governors to elect you Consulting Dentist, to which, after so many years' service, your abilities eminently entitle you. We are not unmindful of the loss which both patients and students will sustain by your resignation; for you have always succeeded in gaining the confidence of the one and the esteem and respect of the other; for your dexterity as an operator has only been equalled by your success in imparting much of it to the students who attended your teaching.

"In wishing you health and happiness for the future, we sincerely trust that though our official connexion may have ceased, the friendship which has sprung from a service of so many years may be prolonged into many years to come.

"With renewed assurances of our good wishes, we are very faithfully yours, (Signed,)

"BARNARD HOLT,	W. R. BASHAM,
CHARLES BROOKE,	G. T. FINCHAM,
C. HOLTHOUSE,	C. B. RADCLIFFE,
W. A. HILLMAN,	FRANCIS E. ANSTIE,
HENRY POWER,	FREDERIC BIRD."
CHRISTOPHER HEATH,	

PAYMENT OF MEDICAL WITNESSES: CHRISTOPHER YORKE, M.D., *v.* T. GREGORY, CORONER.—The plaintiff in this case, a medical gentleman practising at Granard, sued the defendant at Longford Quarter Sessions for £2 2s., fees for making a post-mortem examination, and giving evidence at an inquest held on the body of a man named James Smith. It appeared that another medical gentleman also assisted at the inquest.

The Coroner said that he applied to the grand jury for four guineas, but two were only allowed, which he gave Dr. Grier, requesting him to hand half to Dr. Yorke.

Dr. Yorke said he did not receive any money.

His Worship (Loftus Bland, Esq.,) said that the Coroner, having engaged Dr. Yorke, was personally responsible to him for his fee; but under the circumstance that the Coroner had to pay the fee out of his own pocket, he would give a decree for £1 1s., and 5s. expenses.

Dr. Yorke said he was only anxious to learn the law of the case, as it was a matter which concerned the profession generally.

ST. THOMAS'S HOSPITAL.—A special meeting of the St. Olave's District Board of Works was held on Tuesday, the 14th inst., at which it was resolved:—"That it is expedient to present a memorial to the Governors of St. Thomas's Hospital, urging the necessity of securing the site of the Surrey Gardens, whereon to build the future Hospital."

SLEEPING IN THE OPEN AIR.—Dr. Thos. K. Chambers, in reference to the febbre perniciose of the Italian harvest labourers, has given timely warning of the attacks of ague, pneumonia, typhus and rheumatism, to which our reapers, hop-pickers and others are yearly liable. He intimates that the funds of our Hospitals and Poor law Boards are taxed to double the amount of the wages earned by the labourers. He strongly urges that some preventive measures should be adopted.

ULSTER MEDICAL SOCIETY.—At a meeting of the above Society, held in their rooms, High-street, Belfast, on the 4th instant, Professor Ferguson directed the attention of the members to "A Correspondence between Jas. Vose, M.D., of Liverpool, and the Executors of the late George Grant, Esq.," just published. The entire correspondence having been read, and commented on, it was moved by Professor Ferguson, seconded by Dr. Wheeler, and resolved unanimously,—

"That the members of the Ulster Medical Society entirely concur in the opinions expressed by Drs. Watson and Latham, respectively, in their letters; and beg leave to offer to Dr. Vose the assurance of their respect for, and admiration of, the independent and honourable course pursued by him through the entire correspondence."

JAMES PATTERSON, M.D., Chairman.
HENRY WHITAKER, M.D., } Hon. Secs.
JOHN M'CREA, M.D., }

CHARING-CROSS HOSPITAL.—The following address has been presented to Mr. Hancock by the students of the above hospital:—

To HENRY HANCOCK, Esq., F.R.C.S.

"Dear Sir,—We, the Students of the Charing-cross Hospital School of Medicine, desire to offer you our respectful and hearty congratulations upon the recent success you have achieved by being elected a Member of the Council of the Royal College of Surgeons, and having sustained so honourable a part in a victory which is looked upon throughout the medical world as the commencement of much needed reform.

"We trust that your valuable services may long be spared as an illustrious member of our Profession and as a teacher of aspirants to its ranks."

GANGRENOUS FLY.—The inhabitants in the neighbourhood of the cemetery of Montmartre, Paris, have suffered from the attacks of a "gangrenous fly," which causes inflammation, mortification and death within twenty-four hours. Many persons have fallen victims.

HEALTH OF LONDON DURING THE WEEK ENDING SATURDAY, JULY 18.—Last week there were 1364 deaths in London. The report for the week that ended on the 11th inst. showed an increase of 100 deaths over those of the previous week; and the return for the week that ended last Saturday exhibits a further increase of nearly 100 on the preceding number. The increase in the mortality is caused chiefly by diarrhœa, the deaths from which rose from 47 and 91 in the two previous weeks to 148 last week. Besides the deaths referred to "diarrhœa," there were also 15 from summer cholera. Of the 163 deaths referred to both heads 142 occurred to infants under two years of age. Small-pox was returned in 51 cases, 12 of which are stated to have occurred after vaccination. But the evidence of vaccination, or of the successful performance of it, is often of doubtful character. The mortality of the disease gives not much indication of decline; it is satisfactory, however, to know that it does not increase. Ten out of the 51 deaths occurred in the Small-pox Hospital.

Births last week—Boys, 930; girls, 880. Total, 1810.

Obituary.

BENJAMIN GOLDING, M.D.

IN a late number of THE LANCET we recorded, in the obituary, the removal, by death, of Dr. Golding from the honoured fraternity of London physicians, amongst whom he formerly held a good position. His career in practice, however,

encountered a heavy blow from severe and protracted illness, just at that hopeful crisis in a physician's life when a reputation has been established and the prospect of the future is full of satisfaction and confidence. In adverting to the name of Dr. Golding the mind naturally dwells upon his achievement of those larger, higher, and more enduring objects to which he aspired, and the fulfilment of which was fully accomplished in his own lifetime, and chiefly by his own indefatigable efforts.

Dr. Golding entered as a student at St. Thomas's Hospital in the year 1813, and in 1820 published his elaborate and excellent "Historical Account of St. Thomas's Hospital, Southwark," a work which, besides fulfilling its immediate intention, presents a large contribution of historical matter of great general interest, yet collaterally closely connected with his subject. The feature, however, in that work which is more immediately relevant to this memoir is, that it well displays the ardent bent of the author's feelings and of his genius, and exemplifies the peculiar aptness of his mind for the undertaking to which it was for many years, and, indeed, to the end of his days, devoted.

In the year 1825 he was admitted a licentiate of the Royal College of Physicians of London. It appears that he had early in life aspirations to be the originator and working founder of a public institution having humane, benevolent, and charitable objects similar to those of that noble refuge for the poor in sickness to which he had given his particular attention as an observer and as a critic, and which had employed his pen as its admirer and as its historian. Of these aspirations we have an illustration in the hospital at Charing-cross. This creature of his hope, originating solely in his own earnest desire to add to the number of such places of refuge, in a correct estimate of his own unfailing zeal, and in a firm reliance on public support in a good and great design, was commenced without other patronage than that of the sympathy and aid of private friends, and soon acquired under their influential and generous assistance a local habitation and a name as the "West London Infirmary."

The first step in the undertaking having been made, and the energy and devotion and friendly help which had led to the accomplishment thus far of his more extended views being unabated, and the benefits conferred, moreover, by the infirmary being obvious, the number of influential patrons increased, larger funds were subscribed, and, in a comparatively short space of time, an eligible site was chosen, a handsome and suitable building erected, and a new receptacle for poor sufferers afflicted by illness or by accidents, at once took its place, in a locality where it was much needed, as the Charing-cross Hospital, amongst the great charitable institutions of the metropolis.

How frequently do we see the author of great and useful undertakings cut off from the scene of action on which their enthusiastic minds are still intent, in the midst of their labours, and while the end in which their strongest interest is centred, remains unattained—a boon in prospect, but still in immaturity. We find in the "Historical Account of St. Thomas's Hospital," that the founder of Guy's Hospital, whom we may well call the Great Hospital Philanthropist, "lived only long enough to have the satisfaction of seeing the stately pile, which bears his name, roofed in." Dr. Golding was, happily, spared to see the completion of his work long before he ceased to be an active administrator of its affairs. He lived to see in the annual hospital report of the year preceding his death, that 30,120 patients had actually occupied the beds of the hospital, and that 320,129 out-patients had received relief.

The hospital sustained a heavy loss in the autumn of last year in the death of Mr. Robertson, who had been the honorary secretary of the institution from its commencement, and performed all the onerous duties of the office with precision and punctuality, purely as the friend of the hospital and of Dr. Golding, by whom his death was very severely felt. Dr. Golding's mental powers remained totally unimpaired to the last, enabling him, until a very late period, to give his constant care and assistance both in the councils and in the management of the affairs of the hospital; within the last few months, however, a gradual failing of his bodily strength had been observed by his friends, and his presence at the board meetings at the hospital had been less constant, although the warm interest he felt in everything that concerned its welfare remained undiminished. The termination of his ability, however, to add to the great work which he had originated, fostered, and matured, was (of which he was himself conscious) fast approaching. His strength failed gradually, and finally gave way at the age of sixty-nine.

"To do justice to the merits of those who have gone before us, by recording their names with honourable praise, is but a duty we owe them; and to freshen the annals of history with the recital of their charitable deeds, and transmitting them to posterity as examples worthy of imitation, is the best way of evincing our respect for departed worth, and of rendering its influence permanently useful to mankind."*

DR. ILES, OF FAIRFORD, GLOUCESTERSHIRE.

ON the morning of the 12th inst., Dr. Iles was driving alone from Fairford to Cirencester, and when near the toll gate, adjoining the latter town, the fastening of one of the shafts of the phaeton gave way, and allowed the shaft to fall on the road. This alarmed the horse, and it ran at full speed to the gate, when the unfortunate doctor either jumped out or was thrown out violently, so that he fell on his head. He was conscious for a short time only, and was speedily removed, bleeding freely, to the house of a medical friend, Mr. Ruck, of Cirencester. The deceased lived only until evening, convulsions having come on occasionally. Every attention was given by the medical friends of Dr. Iles, who had formerly resided at Cirencester. An inquest was held on the body, and a verdict of "Accidental Death" returned. It is believed that severe injury to the base of the skull, and rupture of some of the large vessels, had caused death. The deceased has left a wife and seven children, besides a large family circle to mourn the loss they have sustained. The towns of Cirencester and Fairford were literally in a state of gloom at the sad event, and it was the general subject of conversation and deep regret. Dr. Iles was universally respected and beloved, both by the members of his own profession and the public generally. His many acts of kindness to the poor will be long remembered; and a few years ago, on giving up the charge of a parochial district, a handsome clock was presented to him as a testimony of his services. A large district has now lost the advantage of his professional ability, and the neighbourhood will miss a man of high personal character and honourable career. The deceased was in his forty-second year.

MEDICAL APPOINTMENTS.

T. ANDERSON, M.D., Curator of the Botanic Gardens, Calcutta, has been elected a Fellow of the University of Calcutta.

ROBT. BARNES, M.D., has been appointed Obstetric Physician to the London Hospital, vice F. H. Ramsbotham, M.D., resigned.

L. CAPE, M.D., has been elected Consulting Physician to the General Lying-in Hospital, York-road, Lambeth, vice Sir C. Locock, Bart., M.D., resigned.

J. CLARKE, M.D., has been elected Physician-Accoucheur to the General Lying-in Hospital, York-road, vice L. Cape, M.D., resigned.

J. DENHAM, M.D., has been appointed Examiner in Midwifery &c. in the Queen's University, Ireland.

D. R. P. EDWARDS, L.S.A., has been appointed Medical Officer for the Chilton-Polden District of the Bridgwater Union, Somersetshire, vice J. Cornwall, M.R.C.S.E., resigned.

H. J. EDWARDS, M.R.C.S.E., has been appointed Medical Officer for District No. 4 of the Dulverton Union, Somersetshire, vice J. Edwards, M.R.C.S.E., resigned.

T. EKEDALE has been appointed Dispenser at the Workhouse, Brownlow-hill, Liverpool, vice D. Sykes, resigned.

J. GALLOWAY, M.D., has been appointed Medical Officer for the Ireby District, of the Wigton Union, Cumberland, vice R. Taylor, L.F.P. & S. Glas.

G. G. GASCOYEN, F.R.C.S.E., has been elected Surgeon to the Lock Hospital.

H. GOODE, M.B., has been elected Surgeon to the Derby Provident Dispensary, vice J. Jones, M.R.C.S.E., deceased.

C. HINDS, M.R.C.S.E., has been appointed Resident Clinical Assistant to the Middlesex Hospital Medical College, vice Dr. Stobie, resigned.

E. A. HUDSON has been appointed Dispenser to St. Mary's Hospital, vice C. Richards, M.R.C.S.E., resigned.

J. S. HUGHES, M.D., has been appointed Examiner in Surgery in the Queen's University, Ireland.

H. KENNEDY, M.B., has been appointed Examiner in Medicine in the Queen's University, Ireland.

A. H. MARKS, M.D., has been re-elected Medical Officer and Public Vaccinator for the Shinrone Dispensary District of the Roscrea Union, Co. Tipperary.

A. MEADOWS, M.D., has been elected Physician-Accoucheur to the Out-Patients of the General Lying-in Hospital, York-road, Lambeth, vice J. Clarke, M.D., resigned.

N. PARKER, M.D., has been appointed Physician to the London Hospital, vice W. J. Little, M.D., resigned.

J. D. ROBERTSON, M.D., has been appointed Medical Officer for the Parish of Parton, Kirkcudbrightshire, vice J. P. P. Lester, L.F.P. & S. Glas., deceased.

J. ROBERTSON, L.D.S. R.C.S.E., has been elected Dental Surgeon to St. Bartholomew's Hospital, Rochester.

B. SHILLITOE, F.R.C.S.E., has been elected Surgeon to the Out-Patients of the Lock Hospital.

H. J. SHIRLEY, F.R.C.S.E., has been appointed Medical Officer to the Earl-Soham District of the Plomesgate Union, Suffolk, vice E. Gross, M.R.C.S. Eng., resigned.

A. SMITH, M.D., has been appointed Examiner in Materia Medica, and Examiner in Medical Jurisprudence, in the Queen's University, Ireland.

J. H. SOMERVILLE, M.R.C.S.E., has been appointed Medical Officer for the Bloxwich District of the Walsall Union, Staffordshire, vice G. H. Whymper, M.R.C.S.E.

* Historical Account of St. Thomas's Hospital, Southwark. By Benjamin Golding.

MILITARY AND NAVAL MEDICAL APPOINTMENTS.

R. ATKINSON, M.R.C.S.E., Assist.-Surg. R.N. June 10th, 1854, has been appointed to Haulbowline Hospital.

G. BALY, M.R.C.S.E., Assist.-Surg. Rifle Brigade, has been appointed Staff Assist.-Surg., vice Irvine, M.D., appointed to the 79th Foot.

E. C. BENDLEY, M.R.C.S.E., has been appointed Civil Assist.-Surg. of Midnapore, Bengal.

W. J. BUSTEED, Assist.-Surg. Madras Service, has been appointed Civil Surg. of Mangalore, vice Assist.-Surg. Rule, M.D.

P. W. COCKELL, Assist.-Surg. Bombay Service, has been ordered to proceed to Hong-Kong for the purpose of doing duty with the Native Troops of the Bombay Presidency under the General Officer Commanding in China.

T. Q. COUCH, M.R.C.S.E., has been appointed Assist.-Surgeon to the Cornwall Rangers Militia.

C. CRANDELL, M.R.C.S.E., Surg. R.N. Jan. 26th, 1855, has been appointed to the "Leander."

A. K. DRYSDALE, L.R.C.S.Ed., Assist.-Surgeon 79th Foot, has been appointed Staff Assist.-Surg., vice Everet, appointed to the 39th Foot.

J. A. DUNBAR, M.D., Deputy Inspector-General of Hospitals with temporary rank Bengal Service, has been promoted to Deputy Inspector-General of Hospitals, vice Wilson, retired.

W. EVERET, M.R.C.S.E., Staff Assist.-Surg., has been appointed Assist.-Surg. to the 39th Foot, vice Lindsay, appointed to the Staff.

R. W. FAITHFULL, Deputy Inspector-General of Hospitals with temporary rank Bengal Service, has been promoted to Deputy Inspector-General of Hospitals.

S. GIBON, M.R.C.S.E., Assist.-Surg. R.N. May 11th, 1859, has been appointed to the "Dauntless."

J. HILLIARD, M.D., Bengal, attached to the Artillery Division at Allahabad, has been directed to assume medical charge of the 16th Brigade Royal Artillery, vice Francis, appointed to the 104th Foot.

G. N. IRVINE, M.D., Staff Assist.-Surg., has been appointed Assist.-Surg. to the 79th Foot, vice Drysdale, appointed to the Staff.

B. KENDALL, M.R.C.S.E., has been appointed Civil Assist.-Surg. of Ranchee, Bengal.

G. KINGSMILL has been appointed Civil Medical Officer at Jhung, Punjaub.

J. LANDALE, M.D., Supernumerary Assist.-Surgeon 92nd Foot, has been appointed Staff Assist.-Surg., vice Schroeder, M.D., appointed on the Staff.

R. LINDSAY, M.B., Assist.-Surg. 39th Foot, has been appointed Staff Assist.-Surg., vice Barnwell, appointed to the Rifle Brigade.

D. MACFARLANE, M.D., Garrison Surgeon Madras Service, has been removed from Bangalore to Fort St. George.

WM. C. MATTHEWS, M.R.C.S.E., of Longsight, has been appointed Senior Assistant-Surgeon to the 2nd Manchester or 28th Lancashire Rifle Volunteers, vice J. Birch, M.R.C.S., deceased.

J. MENNIE, Assist.-Surg. Bombay Service, has been appointed to act as Civil Surgeon at Dharwar.

C. F. OGILVIE, M.D., Assist.-Surg. Bombay Service, having passed the required examination in Hindustani according to the Staff-test, has been confirmed in the appointment of Civil Surgeon at Sholapore.

J. H. ORR, C.B., M.D., Garrison Surgeon Madras Service, Acting Deputy Inspector-General of Hospitals, has been removed from Fort St. George to Bangalore.

W. G. RIDINGS, M.R.C.S.E., Assist.-Surg. R.N. July 11th, 1856, has been appointed to the "Formidable" for the Marines at Deal.

M. ROGERS, Acting Garrison Surgeon, Surgeon-Major Madras Service, has been removed from Fort St. George to Bangalore.

D. S. SKINNER, M.R.C.S.E., Supernumerary Assist.-Surg. 92nd Foot, has been appointed Staff Assist.-Surg., vice Calvert, promoted on the Staff.

R. S. THRING, M.D., Surg.-Major H.M.'s Sappers and Miners, has, with the approval of the Government of India in the Military Department, been appointed to the charge of the Canal and Thomason College Establishments at Rhoorkee, in succession to Dr. Wilson.

J. A. YULE, M.D., Assist.-Surgeon R.N. Oct. 29th, 1859, has been appointed to the "Cumberland."

Births, Marriages, and Deaths.

BIRTHS.

On the 20th of April, at Newcastle, New South Wales, the wife of Cosby W. Morgan, Esq., Surgeon to the Newcastle Hospital, and Health Officer of the Port, of a daughter.

On the 7th of May, at Kyle, Marulan, New South Wales, the wife of Dr. J. C. Bow, Bengal Army, of a son.

On the 19th ult., at St. Ann's Garrison, Barbadoes, the wife of A. Morphew, M.R.C.S.E., Surgeon 1st West India Regiment, of a daughter.

On the 5th inst., at Skeene-terrace, Aberdeen, the wife of Dr. Keith, of a daughter.

On the 11th inst., at Brougham-terrace, West Derby-road, Liverpool, the wife of Dr. J. M. Johnson, of a daughter.

On the 13th inst., at Bere-Regis, Dorsetshire, the wife of F. D. Lys, M.R.C.S. Eng., of a son.

On the 13th inst., at Inverary, Argyleshire, the wife of Dr. M'Donald, of a son.

On the 14th inst., at Broad-street, Brighton, the wife of G. Geere, M.R.C.S.E., of a daughter.

On the 14th inst., at Maidstone, the wife of G. H. Furber, M.R.C.S.E., of a son.

On the 15th inst., at Eton, Bucks, the wife of J. Smith, M.D., of a son.

On the 16th inst., at Maygate, Dunfermline, Fifeshire, the wife of Wm. Traill, M.D., of a daughter.

On the 17th inst., the wife of J. Risdon Bennett, M.D., of Finsbury-square, of a daughter.

On the 17th inst., at Brookside House, the wife of Geo. Gibson, M.D., of a daughter.

On the 17th inst., at Union-street, Aberdeen, the wife of W. Keith, M.D., of Easter Merchalls, Kincardineshire, of a daughter.

On the 18th inst., at St. Paul's-grove, Canonbury, the wife of R. J. Black, M.D., of a son.

On the 19th inst., at Ballincollig, Co. Cork, the wife of G. A. Rountree, M.D., of a daughter.

On the 19th inst., at Charlotte-square, Edinburgh, the wife of J. Matthews Duncan, M.D., of a son.

On the 19th inst., at Mold, Flintshire, the wife of E. G. Clarke, M.R.C.S., of a daughter.

On the 19th inst., at Coborn-terrace, Bow-road, the wife of H. V. Garman, M.R.C.S.E., of a daughter.

On the 20th inst., at Aigburth, near Liverpool, the wife of C. Evers, M.D., of a daughter.

On the 20th inst., at Great Homer-street, Liverpool, the wife of D. W. Parsons, L.R.C.S.I., of a son.

On the 20th inst., at the Priory, Southport, the wife of E. J. Longton, M.D., of a daughter.

On the 21st inst., at Guy's Hospital, the wife of Dr. Steele, of a son.

MARRIAGES.

On the 21st inst., at Oron Church, near Shrewsbury, Joseph Bagley, Esq., Medical Superintendent of the Salop and Montgomery Counties Lunatic Asylum, to Sarah Jane, second daughter of the late Richard Oliver, M.D.

On the 22nd inst., at the Parish Church, Grantham, Freeman James Eaton, Esq., Surgeon, to Caroline Frances, youngest daughter of the late Francis Simes Alliott, Esq., formerly of Streiley, Notts.

On the 22nd inst., at St. George's, Bloomsbury, Martin J. Crean, M.D., of Stoke-on-Trent, to Lizzie, daughter of the late J. Franks, of Swaton, Lincolnshire, niece of M. Franks, M.R.C.S., of Heckington, Lincolnshire. —No Cards.

On the 22nd inst., at the Cathedral, Manchester, George Bingham, Esq., Solicitor, to Louisa, youngest daughter of G. Pettinger, M.D.—No Cards.

DEATHS.

On the 11th inst., at Metfield, Suffolk, E. Wells, Surgeon, aged 52.

On the 12th inst., at Appleton, Warrington, Lancashire, Thomas Ashton, L.F.P. & S. Glas., aged 48.

On the 14th inst., at Preston, Lancashire, W. F. Moore, M.R.C.S.E., aged 51.

On the 16th inst., at Kennington Hall, near Ashford, Kent, Harry W. Carter, M.D., Deputy Lieutenant and J.P. for the County of Kent, Consulting Physician to the Kent and Canterbury Hospital, aged 75.

On the 17th inst., at Craven-street, Strand, J. Wedderburn, Surgeon, aged 48.

On the 19th inst., at Eccles-street, Dublin, J. Betty, M.D.

Medical Diary of the Week.

MONDAY, JULY 27	ST. MARK'S HOSPITAL FOR FISTULA AND OTHER DISEASES OF THE RECTUM.—Operations, 1½ P.M. METROPOLITAN FREE HOSPITAL. — Operations, 2 P.M.
TUESDAY, JULY 28.....	GUY'S HOSPITAL.—Operations, 1½ P.M. WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEDNESDAY, JULY 29	MIDDLESEX HOSPITAL.—Operations, 1 P.M. ST. MARY'S HOSPITAL.—Operations, 1 P.M. UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M. LONDON HOSPITAL.—Operations, 2 P.M.
THURSDAY, JULY 30 ...	ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. CENTRAL LONDON OPHTHALMIC HOSPITAL — Operations, 1 P.M. GREAT NORTHERN HOSPITAL, KING'S CROSS.—Operations, 2 P.M. LONDON SURGICAL HOME.—Operations, 2 P.M. WEST LONDON HOSPITAL.—Operations, 2 P.M. ROYAL ORTHOPÆDIC HOSPITAL. — Operations, 2 P.M.
FRIDAY, JULY 31.....	WESTMINSTER OPHTHALMIC HOSPITAL. — Operations, 1½ P.M.
SATURDAY, AUG. 1 ...	ST. THOMAS'S HOSPITAL.—Operations, 1 P.M. LOCK HOSPITAL, Dean-street, Soho.—Clinical Demonstrations and Operations, 1 P.M. ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M. KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M. ROYAL FREE HOSPITAL.—Operations, 1½ P.M. CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

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THE LANCET *may be obtained from every respectable Bookseller or Newsman in the World.*

To Correspondents.

Veratus.—Try M. Schwarz's plan. He recommends for the removal of the stains of nitric acid from the skin the use of the sulphide of ammonium, with the addition of a little caustic potash. It is true the colouring matter is not destroyed, but the charred epidermis is converted into a soapy substance, which can be easily scratched off by the nail, or rubbed off by sand. After washing with a little dilute sulphuric acid, the skin becomes clean, and of its normal whiteness. According to this chemist, the above combination might be usefully employed as a caustic in certain affections of the skin.

Constant Reader, (Birmingham.)—It is doubtful if he infringe the law by the course he has pursued. The question, however, might be tried before a magistrate under the provisions of the 40th clause of the Medical Act. A trial for slander in this day's LANCET may afford some hints to our correspondent as to another course which he might pursue.

An Enemy to Poaching.—He cannot legally practise as an apothecary; but it is doubtful whether the Society would lend its name to prosecute in the case.

ARTIFICIAL LIMBS.

To the Editor of THE LANCET.

SIR,—I regret that Mr. Bigg should, by an attack on my personal character, render it necessary that I should again ask you for space upon this subject; but as I am no "perverter of facts" to serve my own ends, and can show that in my letter in THE LANCET of the 4th instant I made no assertion that facts would not support, I beg you will permit me shortly, in my own vindication, to make one or two observations upon Mr. Bigg's letter in your journal of last week.

In my letter of the 4th, I stated that "the limb as designed and executed by me for Dr. Robson is neither in form nor in many of its details common to any limb supplied either by Mr. Bigg, Mr. Gray, or Mr. Grossmith," and I was willing to submit the truth of that statement to the test of comparison. I beg to ask your professional readers whether Mr. Bigg has in the course he has taken, of writing to Dr. Robson, with a random description of his manufactures, submitted to the test I proposed, or elicited a satisfactory contradiction (as he assumes to have done) of my simple and explicit assertion.

If Mr. Bigg is prepared to submit to the test proposed by me, I will give him ample facilities for so doing, the details of which can be arranged privately.

Upon the other and graver point involved in Mr. Bigg's letter, I must beg to be allowed to occupy your space for one or two extracts from the Official Catalogue and Jurors' Awards of the Exhibition of 1862, from which I will be judged whether I have "perverted the facts," or whether I gained a fancied victory only over Mr. Bigg in my department:—

"*Official Catalogue.—Class* 17: *Surgical Instruments and Appliances.*

"3488. Bigg, H. H., 29, Leicester-square: orthopædic and anatomical appliances.

"3547. Masters, M., 1, Paragon-place, New Kent-road: artificial hands, arms, legs, &c.

"*Jury Awards.—Class* 17: *Surgical Instruments.*

"3488. Bigg, H. H., (Medal,) for an ingeniously arranged series of models of orthopædic instruments.

"3547. Masters, M., (Medal,) for great ingenuity in the contrivance and for very great excellence in the manufacture of artificial legs and arms, and of apparatus connected therewith."

Every exhibitor in this Class, and the Jurors also, will doubtless remember *two model arms and two model legs** prominently displayed in Mr. Bigg's case. *What were these displayed for?* And to what did "anatomical appliances" in Mr. Bigg's written description refer?

As instances of good faith in an exhibitor, and of manly truth in a writer, I beg to refer to the extracts below from two letters from Mr. Bigg to THE LANCET, written, it is true, on different occasions and for different objects.

Extract from Letter to Editor of THE LANCET, *Nov.* 15*th*, 1862, *in reference to an Article on "the Jury Report on Surgical Instruments."*

"The censure is, however, principally addressed to those who have contributed to the Exhibition; but even here many well-known surgical names are affixed to various appliances. There are, however, (as in my own case,) exceptional circumstances where this could not with justice be done, from the simple fact *that every piece of mechanism shown is the exclusive invention of the one who displays the collection.*" †

Extract from Mr. Bigg's Letter to THE LANCET *of* 18*th July instant.*

"The real truth, however, is that having a spare corner in my case amongst the large collection of orthopædic inventions therein exhibited, *I placed two small models of an artificial leg recently invented by Dr. Bly, of America, and entrusted to me for construction.*" ‡

After such instances as these, will Mr. Bigg venture to charge me with a gross perversion of facts? I repudiate (without retorting) the charge, and leave your readers to judge between us.

I trust that in replying to Mr. Bigg I have been temperate, as I feel that I have stated nothing but truth; and have only to add that, considering your space for correspondence should be devoted to the promotion of science rather than to personal squabbles, I shall not trouble you with any notice of any further attack Mr. Bigg may choose to make upon me.

I am, Sir, your obedient and obliged servant,

Paragon-place, New Kent-road, July, 1863. M. MASTERS.

* Amputations of the arm above and below the elbow, and of the leg above and below the knee, are the most common amputations, and to supply the loss of these by the artificial arm or leg, hand or foot, is the object of the mechanician; so that models of arms and legs form what is usually considered a complete collection of artificial limbs.

† The italics in the extracts are mine.

‡ The absence of the "tendo-Achillis" is a noticeable defect in Dr. Bly's limb, and constitutes a material, though not the only, difference between it and mine.

*** We cannot insert any more letters on this subject.—ED. L.

Veritas.—It is necessary that certain lectures should be attended. Full information can be obtained on reference to the Students' Number of THE LANCET.

IS VACCINA VERA A SPECIFIC POISON?

To the Editor of THE LANCET.

SIR,—Mr. Rugg's letter on Vaccination, in your last issue, is a very suggestive one, and there is one question mooted in it of much importance in a sanitary as well as a practical point of view. He dwells on the risk attending promiscuous vaccination of conveying the germs "of some hideous and loathsome disease." From the context of his letter I conclude that syphilitic inoculation is the danger to which he refers. Now, I cannot conceive that any practitioner would pursue arm-to-arm vaccination in any instance where he saw evidence of that or any other form of eruptive disease, or that collectors of lymph would store up any taken from such subjects. Observation has satisfied me that vaccination during the presence of such disease is invariably unsuccessful. It is true that we may have the formation of a pustular eruption following the insertion of virus; but it will be of a spurious character, wanting in some or all of those features which characterize the true vaccine pustule, or presenting such irregularities in its progress, maturation, desiccation, and cicatrix, as to convince the careful observer of its total insufficiency for the purpose of protection. In fact, any disturbance of the constitution at the time of vaccination seems always to modify the course of the disease. Thus we may have either a hastening or a retardation of the eruption, a diminution in the size of the pustule, or great or little attendant areolar inflammation, arising from such causes as dentition, catarrh, diarrhœa, &c. While I admit, then, the propriety of great caution in not using lymph from a pustule co-existent with disease of a contagious character, or from a pustule not exhibiting *all* the true characters of vaccina, I question if *constitutional taint*, as I understand the term, is communicable by the virus of vaccine. If it be so, then clearly it becomes our duty to use lymph only from the *cow* as the sole safeguard against the risk of inoculation; for we cannot always determine from the mere appearance of a child on its immunity from constitutional taint, and Mr. Rugg admits that few persons will submit to the investigation necessary to establish the hereditary proclivities of their offspring.

Hence would seem to arise the broad question, Can a specific virus, such as vaccina must be admitted to be, acquire, by being transmitted through the human system, any other property than that which is made manifest by its peculiar action on the tissues involved in the operation of vaccination? If the affirmative of this proposition be accepted as physiological and pathological truth, I repeat we must abandon the practice of vaccinating with lymph taken from the human subject. Lymph, the product of a perfect vaccine pustule, must be regarded, I maintain, as a poison *sui generis*, as elemental as that of syphilis or the rattlesnake, and we might as reasonably look for the development of tetanus from the one or of glanders from the other as for the transmission of scrofula by vaccination. The constant repetition of vaccination with lymph from arm to arm is attended, I apprehend, rather by a loss of power in the virus itself than by the acquisition of new properties.

As pertinent to my subject, I venture to ask why it is that the phenomena of vaccination display themselves only at the points of insertion? If the constitution responds to the peculiar action of the poison, we should look for the eruption of pustules on other parts of the surface. I have seen this in two instances only, in both of which a few perfect pustules made their appearance elsewhere than on the arm; but I have also seen several cases with an accompanying eruption of a vesicular character, probably the *varicella varioloides* of nosologists.

Is it essential that there should be more than one pustule present to constitute *successful vaccination*? If this solitary pustule presents all the characters of true vaccina, is it not a sufficient proof of the specific action of the poison? It must have occurred in the experience of many besides myself that out of four or six insertions, all made with equal care, only one pustule matured, running through all its changes, and leaving a well-marked cicatrix.

Your obedient servant,

Kennington, July, 1863. H. M.

To the Editor of THE LANCET.

SIR,—Your correspondent, Mr. Rugg, has made a rather wholesale accusation against "parish vaccinators;" but he appears to forget that only duly-qualified men hold this position, and that these same parish vaccinators are men who in other respects stand well in the opinion of their medical brethren. For the last nine months I have held the position of parish vaccinator, but I do not think that during that time I have taken less care in the selection of lymph than I formerly did. There is a great deal of prejudice on the part of the poor generally against vaccination, and this can only be overcome by care and attention in the selection of lymph, and a little consideration and explanation to the poor. Excuses are constantly ready in order to put off vaccination to a future day, and in many instances a vaccinator has to pay one or two visits before the mother will consent to the operation being performed. This trouble must be increased if medical men proclaim aloud the incompetency of vaccinators. In nearly every union there are places appointed for the purpose of vaccination; but if the vaccinator were content to do only those who apply at these stations, not one-eighth part of the number would be done that are now done by the vaccinator vaccinating the children at their homes. In country districts the parish vaccinator is generally parish medical officer, and therefore the medical attendant of the families of the poor, many of whom he has known for years. Who therefore is better able to judge of their hereditary diseases than he? Again, I ask, where does small-pox flourish most? I reply, in towns, where vaccination is but badly carried out, the poor neglecting to attend at the appointed stations; and not in country districts, where vaccination is much more successfully carried out by what Mr. Rugg is pleased to call the "touting" of the vaccinators. But I believe that this is a term that ought not to be applied, as I think that parish vaccinators do not generally seek to vaccinate other than the children of the poor—at least I can answer for myself, though certainly, if requested to vaccinate the children of small tradesmen, I do not refuse to do so. The public at large have a certain amount of prejudice against parish officers of any and every description, and it is not right that this should be extended towards the medical officer by members of his own profession, as must be the case if gentlemen write wholesale accusations against them in THE LANCET, as this journal is now glanced over, and I may say read, by many of the public.

Finally, I ask to bring the following case to Mr. Rugg's notice:—A week ago I was requested by a woman to vaccinate her child. She at the same time told me that my assistant had previously refused to vaccinate it, as the child she *selected* was not considered and *selected* by us as one suitable for the purpose of continuing a healthy supply of lymph.

I am, Sir, yours obediently,

Shefford, Biggleswade, July, 1863. C. C. BALDING, M.R.C.S.

Chemicus.—The new metal "Siderium" was discovered by Mr. Sonstadt in the "caresaue" remaining when the chloride of magnesium is obtained by evaporating and igniting the chlorides of magnesium and sodium. As in many of its reactions this new metal corresponds almost precisely with iron, it is presumed that it has hitherto been confounded with the latter.

Mr. Edward G. Clarke, (Mold, Flintshire.)—The "card" of M. W. F. M'Millan, M.D., is no doubt highly objectionable in a professional point of view. It is far more suited to a small tradesman than to a member of a learned profession.

Paterfamilias.—We believe that they are free from any injurious material.

POISONING BY MACKEREL.

To the Editor of THE LANCET.

SIR,—As I think the following remarks may be of interest, I shall feel much obliged by your giving them room in your valuable publication:—

On the morning of the 27th of June last, about a quarter of an hour after breakfast, one of my messmates came to me quite flurried, stating he suddenly felt very "giddy," and had the feeling of a sudden rush of blood to the head. His face and neck were of a purple colour, and his eyes suffused. I made him lie down on a sofa close to a port, in order that he might have the benefit of the little breeze there was at the time. His heart, which was from the first beating quickly, became now more and more increased in its action, giving rise to violent pulsation of the arteries of the neck. The pulse at the wrist was at first weak, quick, as frequent as 150 beats, but never full. There was also a very well-marked pulsation of the arch of the aorta and the arteries arising from it, producing a characteristic heaving of the chest, and giving rise to a choking sensation, so much so that my patient at one time could scarcely articulate. I gave him a draught of diluralis with camphor mixture, which after the lapse of ten minutes seemed to produce a slight relief.

Just at this time I was sent for by another officer, who complained of similar symptoms, but in a less degree. Being puzzled as to the cause of these very severe and sudden symptoms, I at once made inquiries, and could only come to the conclusion that it was the effects of their having partaken of "mackerel" for breakfast. I immediately administered an emetic in both cases, which afforded great relief. In about three-quarters of an hour after my first patient was attacked, the backs of his hands and arms were covered with red patches. I now gave them sherry and soda, and made them lie quiet till the afternoon, when they were able to return to their duty.

Several other officers having suffered in a milder degree leaves no doubt that these symptoms were produced by eating mackerel. I think the case worth noticing from the very severe and sudden action produced by this fish on the circulatory system.

Our messman states that he purchased the fish on the evening previous, and in an apparently healthy condition.

I remain, Sir, your obedient servant,

T. N. W. COLAHAN, Assist.-Surg. R.N.

H.M.S. *Revenge*, off Malta, June, 1863.

A Surgeon.—After weighing the evidence *pro* and *con*, it will, we think, appear that extirpation of the tongue is a justifiable procedure under certain extreme circumstances.

Alpha, (The Midlands.)—We believe the locality for the disease to be an unfrequent one; but at the New York Pathological Society two specimens of cancer of the gastrocnemius muscle were recently exhibited by Dr. Sands.

EGG POWDERS.

To the Editor of THE LANCET.

SIR,—I shall be greatly obliged to you or any of your readers if I can be informed through your columns whether the presence of "egg powder" can be detected by the non-chemical eye when used in puddings as a substitute for eggs.

One of my children a few days ago exhibited symptoms of uneasiness soon after having dined, complaining of headache, pain and a sensation of burning at the chest, with slight nausea. As he had partaken rather largely of rice pudding, I examined the remains on the dish, and noticed a peculiar colour, which had penetrated the rice. This appearance did not seem natural to an egg pudding. The colour was a heavy yellow, something like gamboge. Eggs, we know, when made into custard, and baked or boiled, have a bright colour of their own; but I am not aware that the farinaceous substances with which eggs are associated in cooking imbibe any colour from them.

If this point could be settled, mothers, desirous to secure for their children genuine ingredients in their puddings, would have a simple and sure means of testing every article of the kind. When it is known that *chromate of lead* is used for the purpose of colouring "egg powders," we cannot wonder at the symptoms which I have narrated, and which happily soon yielded to treatment; nor can we be surprised at any ill effects that we may hear of from the reckless use of these pernicious substitutes.

I am, Sir, yours truly,

July, 1863. M. A. B.

WE cannot insert *Mr. Carpenter's* note, inasmuch as it contains exceptionable matter. Our observations were founded on the report in the public papers, and were written without prejudice. Surely Durham is not wanting in practitioners of reputation and ability who will, for the sake of their profession, try and prevent those practices of which Mr. Carpenter complains. Again we commend the whole affair to their settlement.

PRECEDENCE OF VOLUNTEER SURGEONS.

To the Editor of THE LANCET.

SIR,—Can you or one of your readers answer me the following question:—I have lately been appointed assistant-surgeon to a volunteer corps, having when the corps was of less strength been its honorary assistant-surgeon. In the same town is another corps, having an honorary assistant-surgeon, the date of whose commission is prior to mine.

I should be glad to know whether I, of substantive rank, but more recent date, or the other gentleman, of honorary rank, but longer standing, take precedence? I remain, Sir, yours truly,

July, 1863. AN ASSISTANT-SURGEON, R.V.

Mr. James Mercer.—Under the provisions of the Medical Witnesses Act, the Coroner is empowered to pay a fee of one guinea to a duly-qualified practitioner for giving evidence at an inquest. An unqualified witness, even though his evidence may be valuable, cannot claim the same fee. This may appear to be a hardship in some cases; but there can be no doubt that the Act properly excluded unqualified practitioners.

THE letter from the *Parishioner of St. Luke's* contains very grave charges against one of the officials, which, if well founded, are within the control of the parish authorities, who are the proper persons to decide upon their truth.

W. E., (Treherbert.)—In point of law, we believe the guardians are not compelled to pay the rental. Our correspondent should memorialise the Poor-law Board upon the subject.

Viator, (Glasgow.)—The circular of George Hills, M.D., is scarcely consistent with professional etiquette. Such breaches of propriety are of constant occurrence. It is difficult to find a remedy for them.

Accoucheur.—1. Madame Boivin was a French *sage femme* of great ability and experience. Her work was translated into English.—2. Yes.

PUBLIC VACCINATORS.

To the Editor of THE LANCET.

SIR,—As no notice has been taken of Mr. Foster's letter, which appeared in THE LANCET of the 11th instant, and as there is a passing reference made to the same complaint—viz., of public vaccinators touting for cases amongst the patients of their brother practitioners—in Mr. Hodson Rugg's letter, in your last impression, I hope you will allow me space in your columns to protest against such conduct.

I am a public vaccinator; but if I thought it was necessary to the discharge of my official duties that I should break through all medical etiquette, I would throw up my appointment at once. But it is not so. It is surely the duty of the parish authorities to urge parents and guardians to comply with the requirements of the Vaccination Act, and to threaten them with the penalties if they refuse compliance. The duty of the vaccinator, so far as I understand it, is simply to attend punctually at his appointed station, and there to vaccinate all children who may be brought to him. To seek out cases for vaccination amongst any but his own patients seems to me a derogatory and an unprofessional act.

I am, Sir, your obedient servant,

THOS. H. MOXON, M.R.C.S.

Kirton-in-Lindsey, Lincolnshire, July, 1863.

To the Editor of THE LANCET.

SIR,—A correspondent complains in your journal of the 11th instant that the public vaccinator of the district in which he practises sends to all private patients, whether attended by himself or any other medical man, reminding them that they can have their children vaccinated gratis *at his surgery*.

Your correspondent may console himself with the knowledge that there are others who have to put up with still more ungentlemanly conduct from neighbouring practitioners than that of which he complains.

The public vaccinator for this district not only vaccinates gratis at his surgery, but calls upon all our patients (such as farmers and tradespeople) who may have new members added to their family, and vaccinates them gratis *at their own homes*, charging the parish as if they were paupers. Many of them live five or six miles off, and this member of a dignified profession takes the trouble to ride that distance for the paltry remuneration of half-a-crown. The consequence is, if we charge our patients an ordinary vaccination fee, they refuse to pay it, and say they will send for the public vaccinator, and have it done for nothing, the next time the operation is required.

I have tried for more than twelve months to stop this unfair practice; but having been entirely unsuccessful, I do not hesitate now to give it publicity.

I am, Sir, your obedient servant,

Buckfastleigh, July, 1863. HENRY USSHERR, M.R.C.S.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Chambers; Dr. Pavy; Mr. Hilton; Mr. Balding, Shefford; Mr. Greenway, Gamlingay; Mr. Rymer, Ramsgate; Mr. Howie, (with enclosure;) Mr. Grace, (with enclosure;) Mr. Whitaker, Belfast; Dr. Robinson; Mr. Masters; Mr. Bayley, Shrewsbury; Dr. Franklyn; Mr. H. Ubsdell, Buckfastleigh; Mr. Hayward, Axminster; Mr. Cooke; Dr. West; Mr. Blackett, Durham; Mr. Sargeant; Dr. Ward, Glossop; Mr. Laing, (with enclosure;) Dr. Jervis; Mr. Reddrop, Tiverton; Mr. Little, Coventry, (with enclosure;) Mr. Moxon, Kirton-in-Lindsey; Mr. Hyde, (with enclosure;) Mr. Jones, Pwilheli; Dr. Flowers; Mr. Mercer; Mr. Eddowes, Shrewsbury, (with enclosure;) Mr. S. Thomas, Swansea; Mr. Welby, Manchester; Mr. W. DIXON, Tukhill, (with enclosure;) Mr. Johnstone, Stonewell; Dr. Eastwood, Fairford; Mr. A. Alison; Mr. Hawkes, Stoke, (with enclosure;) Dr. Stevenson, (with enclosure;) Mr. Dunn, Crick; Mr. Iliffe, Coventry; Mr. Norris; Messrs. Murray, Glasgow, (with enclosure;) Mr. Maunder; Mr. A. H. Churchill; Mr. F. W. Dunne; Mr. Dow, Lockwood, (with enclosure;) Mr. Davies, Birmingham, (with enclosure;) Mr. White, (with enclosure;) Dr. Ryan, Dublin; Mr. J. Laird, (with enclosure;) Mr. Higgs, Birtley; Mr. J. E. Brown; Mr. Walker; Mr. Hutchinson; Mr. Abraham; Mr. Colahan, R.N.; Mr. N. Moore, Sheffield; Mr. Lloyd; Dr. Savage, (with enclosure;) Mr. Chapman, Talywain; Mr. E. Cripps, Cirencester; Mr. Weaving, (with enclosure;) Dr. Evers, Aigburth; Mr. Bower, Nantwich, (with enclosure;) Mr. Holmes, Seacombe; Dr. Land; Mr. W. C. Matthews, Longsight; Mr. H. V. Garman; Mr. J. P. Glover; Mr. Westmacott; Mr. Dyer; Mr. Yates; Mr. Saile; Dr. Wolfe, Aberdeen; Mr. C. Heath; Mr. Benbow; Dr. Seth Gill; Mr. A. Amboise; Chemicus; M. A. B.; W. E.; Royal College of Physicians; Constant Reader; Omega, (with enclosure;) A. B., (with enclosure;) Paterfamilias; R. V.; G. B.; H. M.; Viator; J. L. N.; Salop Infirmary; A Subscriber of Thirty Years; G. H.; A Graduate; D. T., (with enclosure;) The President of the College of Physicians of Edinburgh; Accoucheur; An Enemy to Poaching; S. M., (with enclosure;) Surgeon, (with enclosure;) Surrey County Hospital; &c.